bp Statistical Review of World Energy

2022 | 71st edition





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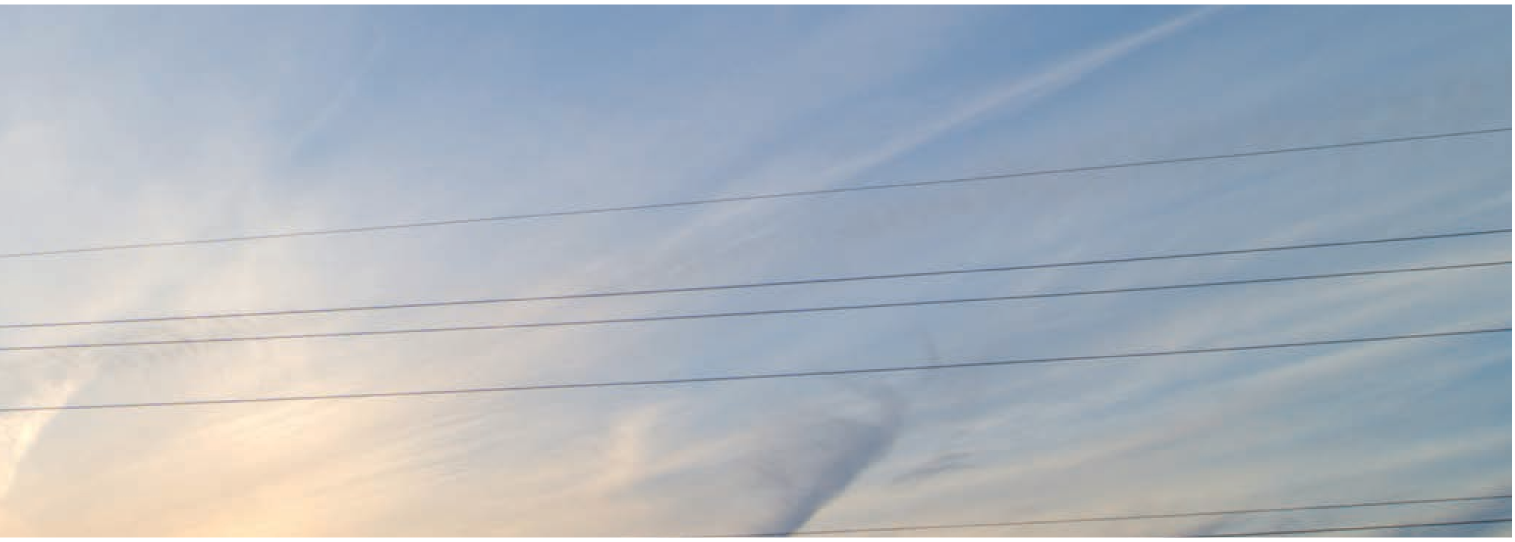
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Contents



Acknowledgements
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Chief economist's introduction



"The pronounced dip in carbon emissions in 2020 was only temporary."

The challenges and uncertainties facing the global energy system are at their greatest for almost 50 years, since the time of the last great energy shocks of the 1970s.

Most immediate is the impact of the terrible events taking place in Ukraine, with its tragic toll on lives and communities. The war also threatens to lead to shortages in food and energy, which could detract materially from health and wellbeing across the globe. From an energy perspective, the growing shortages and increasing prices highlight the continuing importance of energy 'security' and 'affordability' alongside 'lower carbon' when addressing the energy trilemma.

This immediate challenge sits alongside the need for the world to achieve a deep and rapid decarbonization consistent with meeting the Paris climate goals. Considerable progress has been made in sovereign pledges to achieve net zero, but those growing ambitions have yet to translate into tangible progress on the ground: carbon emissions have risen in every year since the Paris goals were agreed (other than in 2020 at the height of the COVID-19 pandemic). The world remains on an unsustainable path.

Added to those challenges, as COVID-19 restrictions around much of the world are relaxed and economic activity recovers, energy consumption is expanding sharply increasing the demands on available energy supplies and highlighting fragilities in the system.

Responding to those multiple challenges and uncertainties requires timely, objective and comprehensive data. That is the role bp's *Statistical Review of World Energy* has been playing for the past 71 years and continues to play this year.

This year's data show a sharp bounce back in global primary energy in 2021, increasing by almost 6% and more than reversing the sharp fall in energy consumption in 2020 as much of the world locked down. Primary energy use in 2021 is estimated to be more than 1% above its 2019 level.

In many ways, this sharp rebound in energy demand is a sign of global success, driven by a rapid recovery in economic activity as the widespread distribution of effective vaccines allowed for an easing in COVID-19 restrictions in many parts of the world and a return to our everyday lives. But it also highlights that the pronounced dip in carbon emissions in 2020 was only temporary: carbon equivalent emissions from energy (including methane), industrial processes, and flaring increased by 5.7% last year. Smoothing through the impact of the pandemic, emissions were broadly unchanged over the past two years.

Encouragingly, renewable energy, led by wind and solar power, continued to grow strongly and now accounts for 13% of total power generation. Renewable generation increased by almost 17% in 2021 and accounted for over half of the increase in global power generation over the past two years.

The low-carbon energy sources and technologies needed to achieve a fast and deep decarbonization exist today – wind and solar power, biofuels, blue and green hydrogen, CCUS (carbon capture, use and storage), and carbon dioxide removals. The challenge is to apply them at unprecedented pace and scale. At bp, we remain committed to playing our role as we pursue our net zero ambition. I hope this year's Review is of use to others following a similar pathway. I would like to thank all those who help us compile the Review, including the governments and statistical agencies around the world who have contributed their official data again. The *Statistical Review* would not be possible without your continuing support and transparency.

Thank you.



Spencer Dale
Chief economist
June 2022

2021 at a glance

Energy demand and emissions bounced back to around pre-pandemic levels in 2021, reversing the temporary reduction in 2020 resulting from the COVID-19 pandemic.

Energy developments

- Primary energy demand increased by 5.8% in 2021, exceeding 2019 levels by 1.3%.
- Between 2019 and 2021, renewable energy increased by over 8 EJ. Consumption of fossil fuels was broadly unchanged.
- Fossil fuels accounted for 82% of primary energy use last year, down from 83% in 2019 and 85% five years ago.

Carbon emissions

- Carbon dioxide emissions from energy use, industrial processes, flaring and methane (in carbon dioxide equivalent) rose 5.7% in 2021 to 39.0 $GtCO_2e$, with carbon dioxide emissions from energy rising 5.9% to 33.9 $GtCO_2$, close to 2019 levels.
- Carbon dioxide emissions from flaring and emissions from methane and industrial processes rose more modestly by 2.9% and 4.6% respectively.

Oil

- Oil prices averaged $70.91/bbl in 2021, the second highest level since 2015.
- Oil consumption increased by 5.3 million barrels per day (b/d) in 2021 but remained 3.7 million b/d below 2019 levels.
- A majority of the consumption growth came from gasoline (1.8 million b/d) and diesel/gasoil (1.3 million b/d). Regionally, most of the growth took place in the US (1.5 million b/d), China (1.3 million b/d) and the EU (570,000 b/d).
- Global oil production increased by 1.4 million b/d in 2021, with OPEC+ accounting for more than three-quarters of the increase. Among all countries, Libya (840,000 b/d), Iran (540,000 b/d) and Canada (300,000 b/d) saw the largest increases. Nigeria (-200,000 b/d), the UK (-170,000 b/d) and Angola (-150,000 b/d) reported the biggest declines.
- Refinery capacity declined for the first time in over 30 years by almost 500,000 b/d last year driven by a sharp reduction in the OECD (1.1 million b/d). As a result, refining capacity in the OECD in 2021 was at its lowest level since 1998.

Natural gas

- Natural gas prices rebounded strongly across all three major gas regions in 2021, rising fourfold to record annual levels in Europe (TTF averaging $16/mmBtu) and tripling in the Asian LNG spot market (JKM averaging $18.6/mmBtu). US Henry Hub prices nearly doubled to average $3.8/mmBtu in 2021 – their highest annual level since 2014.
- Global natural gas demand grew 5.3% in 2021, recovering above pre-pandemic 2019 levels and crossing the 4 Tcm mark for the first time. Its share in primary energy in 2021 was unchanged from the previous year at 24%.
- LNG supply grew 5.6% (+26 Bcm) to 516 Bcm in 2021, its slowest rate of growth since 2015 (other than in 2020). LNG supply from the US rose by 34 Bcm, accounting for most of the new incremental supplies and more than offsetting declines from mainly other Atlantic Basin exporters.
- China surpassed Japan as the world's largest LNG importer and accounted for close to 60% of global LNG demand growth in 2021.
- Algerian pipeline exports to Europe were the largest source of pipeline supply growth to the region (+13 Bcm) last year, followed by Azerbaijan (+6 Bcm). While Russian pipeline supply to Europe overall was steady at 167 Bcm in 2021, exports to the EU decreased by 8.2% (-12 Bcm).

Coal

- Coal prices rose dramatically in 2021, with European prices averaging $121/tonne and the Asian marker price averaging $145/t, its highest since 2008.
- Coal consumption grew over 6% in 2021 to 160 EJ, slightly above 2019 levels and its highest level since 2014.
- China and India accounted for over 70% of the growth in coal demand in 2021, increasing by 3.7 and 2.7 EJ, respectively.
- Global production matched consumption with an increase in supply of 440 Mt. China and India accounted for much of the increase in production, which was largely consumed domestically, as well as Indonesia, supporting higher exports.
- Notably, both Europe and North America showed an increase in coal consumption in 2021 after nearly 10 years of back-to-back declines.

Renewables, hydro and nuclear

- Renewable primary energy (including biofuels but excluding hydro) increased by around 5.1 EJ in 2021 – corresponding to an annual growth rate of 15%, stronger than the previous year's 9%, and higher than that of any other fuel in 2021.
- Solar and wind capacity continued to grow rapidly in 2021, increasing by 226 GW, close to the record increase of 236 GW seen in 2020.
- China remained the main driver of solar and wind capacity growth last year, accounting for about 36% and 40% of the global capacity additions, respectively.
- Hydroelectricity generation decreased by around 1.4% in 2021, the first fall since 2015. In contrast, nuclear generation increased by 4.2% – the strongest increase since 2004 – led by China.

Electricity

- Electricity generation increased by 6.2% in 2021 – similar to the strong bounce back seen in 2010 in the aftermath of the financial crisis (6.4%).
- Wind and solar reached a 10.2% share of power generation in 2021, the first time wind and solar power have provided more than 10% of global power and surpassing the contribution of nuclear energy.
- Coal remained the dominant fuel for power generation in 2021, with its share increasing to 36%, up from 35.1% in 2020.
- Natural gas in power generation increased by 2.6% in 2021, although its share decreased from 23.7% in 2020 to 22.9% in 2021.

Key minerals

- The price of cobalt increased 63% in 2021 to average $51,000/tonne. Similarly, lithium carbonate prices rose 58% to average $11,000/tonne. So far in 2022, mineral prices have continued to surge.
- Lithium production rose sharply by 27%, cobalt output was up by only 4%.

2021: Six key charts

In 2021, the energy system rebounded strongly as the global economy recovered from the COVID-19 pandemic. These charts summarize some of the key highlights from this year's *Statistical Review*.

Primary energy

Primary energy grew by 31 EJ in 2021, the largest increase in history and more than reversing the sharp decline seen in 2020. Primary energy in 2021 was 8 EJ above 2019 levels.

The increase in primary energy in 2021 was driven by emerging economies, which increased by 13 EJ, with China expanding by 10 EJ.

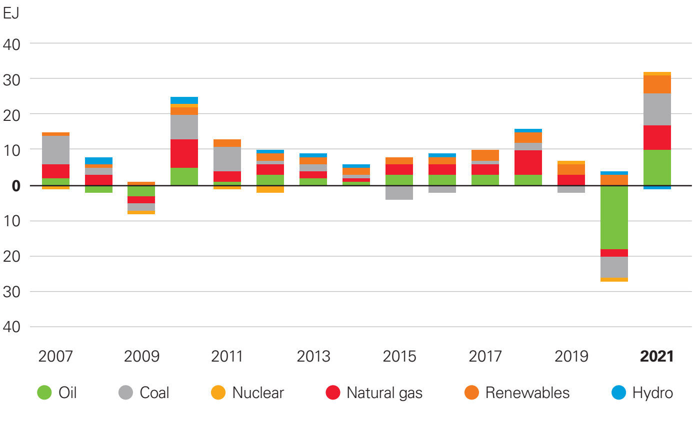
Since 2019, primary energy consumption in emerging economies increased by 15 EJ, largely reflecting growth in China (13 EJ). In contrast, energy demand in developed economies in 2021 was 8 EJ below 2019 levels.

The increase in primary energy between 2019 and 2021 was entirely driven by renewable energy sources. The level of fossil fuel energy consumption was unchanged between 2019 and 2021, with lower oil demand (-8 EJ) offset by higher natural gas (5 EJ) and coal (3 EJ) consumption.

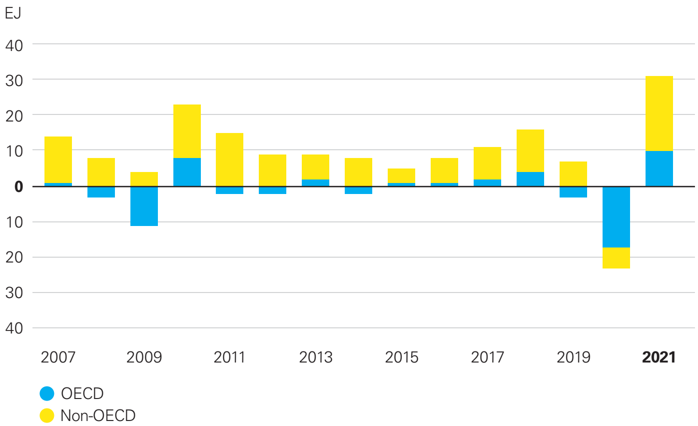


Primary energy in 2021 grew by its largest amount in history, with emerging economies accounting for most of the increase

Change in primary energy by fuel



Change in primary energy by geography



"Primary energy use in 2021 was 1.3% above 2019 levels."

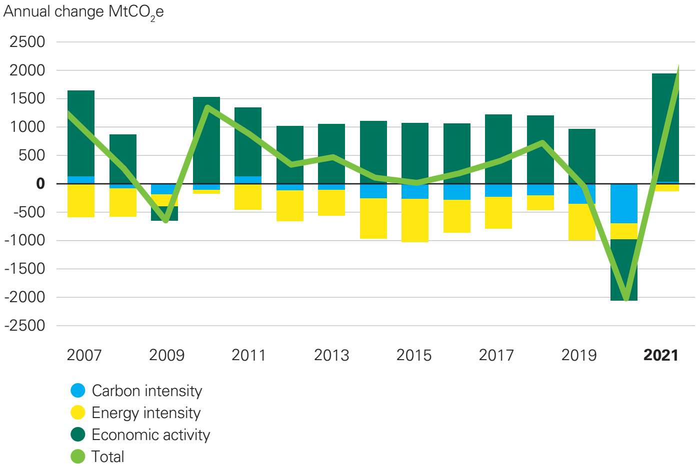
CO_2 emissions

Emissions from energy rebounded strongly in 2021 back to around 2019 levels.

The sharp rebound in emissions in 2021 was explained by economic growth. As economic activity recovered from lockdowns and other COVID-19 related measures, energy consumption increased sharply. Carbon intensity and, to lesser extent, energy intensity were largely unchanged in 2021.

> Emissions from energy rebounded strongly in 2021 back to around 2019 levels.

The increase in carbon emissions in 2021 was driven by the rebound in economic growth





Commodity prices

Global energy prices increased sharply in 2021.

The most pronounced increase was in the price of natural gas. TTF increased by over 400% to average $16/mmBtu in 2021.

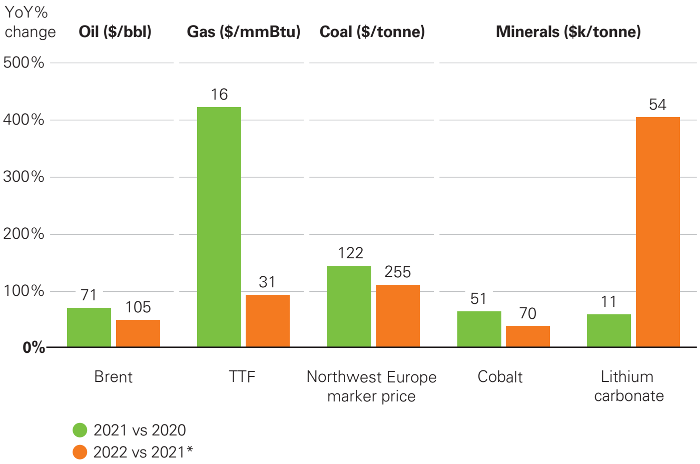
Oil prices rose by around 70%, with Brent ending the year around $70/bbl.

Cobalt and lithium carbonate saw similar rates of increase, averaging $51,000/tonne and $11,000/tonne, respectively, in 2021.

Prices continue to increase in 2022. So far, lithium carbonate has soared more than 400% in the first five months of this year, to a record level of $54,000/tonne.

> Natural gas prices quadrupled in Europe, tripled in Asia, and doubled in the US.

Energy and mineral prices increased in 2021 and continue to do so in 2022



Sources:
Brent: S&P Global Platts, © 2022, S&P Global Inc.
TTF: ICIS Heren Energy Ltd.
Northwest Europe marker price: S&P Global Platts, © 2022, S&P Global Inc.
Cobalt: London Metal Exchange
Lithium carbonate: Benchmark Mineral Intelligence

*2022 vs 2021 percentage changes use the latest data available as of June 2022

Oil demand

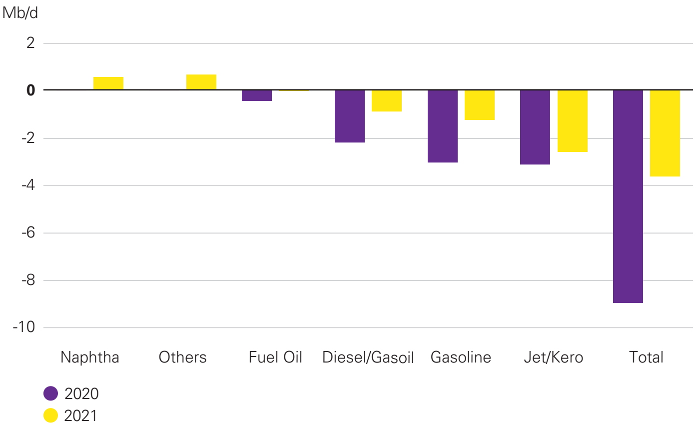
Oil demand in 2021 averaged 3.7 Mb/d below 2019 levels

Much of this weakness was concentrated in aviation-related oil demand, which was more than 2.5 Mb/d (33%) below 2019 levels.

Demand for diesel and gasoil in 2021 was less than 1 Mb/d (3%) below pre-pandemic levels. In contrast, naphtha, and other oil products demand in 2021 were above their pre-pandemic levels.

> Aviation-related oil demand remained 33% below 2019 levels in 2021.

Oil demand in 2021 remained below 2019 levels



Power by fuel

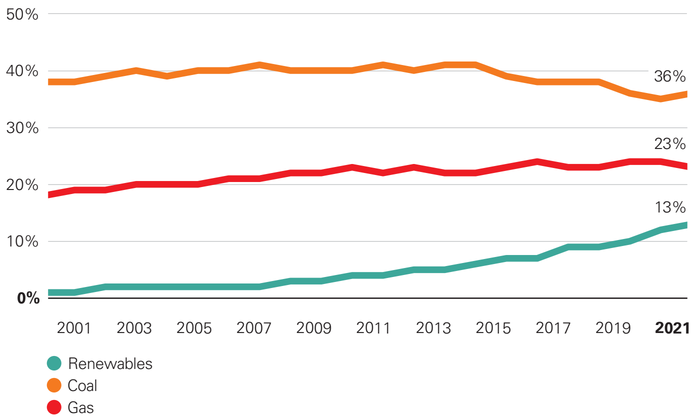
The share of renewables (excluding hydro) in global power generation continued its rising trend, driven by strong expansion in solar and wind energy. Renewables share in power generation reached almost 13% in 2021, higher than the share of nuclear energy (9.8%).

The share of coal in the power sector increased slightly from 35% to 36% in 2021 but remained below its 2019 level.

The share of gas generation in 2021 remained close to its 10-year average level.

> In the last two years, renewables have grown more than the combined increase in coal and natural gas supplies.

The share of renewables in global power generation continued to increase







Oil, gas and coal trade

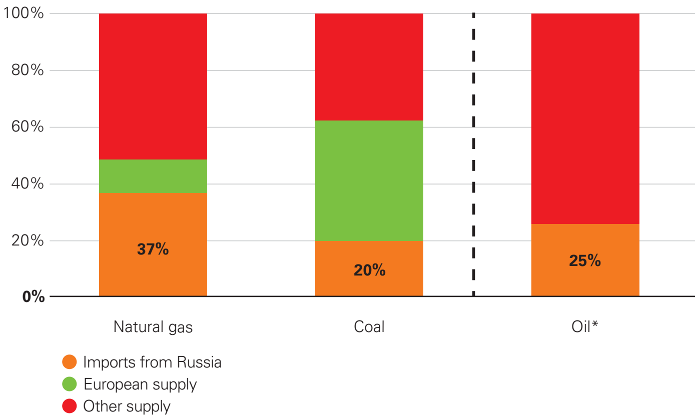
Russian natural gas imports via pipeline and LNG accounted for almost 40% of total EU natural gas consumption in 2021.

Russian oil imports made up 25% of total EU oil imports.

Russian coal imports contributed 20% of total EU coal energy consumption in 2021.

> Russia accounted for almost 40% of Europe's gas use in 2021.

Russian share of EU-27 Natural gas and Coal consumption and Oil imports



*Crude and products. May include re-exports of product and oil that is stored but not processed.



① Primary energy

Consumption*

Exajoules	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Growth rate per annum 2021	Growth rate per annum 2011-21	Share 2021
Canada	14.03	14.07	14.42	14.45	14.55	14.35	14.58	14.70	14.63	13.82	**13.94**	1.1%	-0.1%	2.3%
Mexico	7.69	7.73	7.76	7.73	7.72	7.82	7.93	7.90	7.58	6.43	**6.79**	5.9%	-1.2%	1.1%
US	92.61	90.17	92.62	93.59	92.69	92.60	92.95	96.34	95.66	88.54	**92.97**	5.3%	♦	15.6%
Total North America	114.33	111.98	114.80	115.77	114.96	114.77	115.46	118.95	117.87	108.79	**113.70**	4.8%	-0.1%	19.1%
Argentina	3.27	3.40	3.54	3.53	3.59	3.57	3.57	3.54	3.35	3.17	**3.43**	8.5%	0.5%	0.6%
Brazil	11.80	12.02	12.44	12.73	12.40	12.12	12.25	12.30	12.56	12.00	**12.57**	5.0%	0.6%	2.1%
Chile	1.47	1.50	1.52	1.49	1.52	1.60	1.61	1.69	1.74	1.62	**1.66**	3.0%	1.3%	0.3%
Colombia	1.51	1.62	1.63	1.71	1.73	1.82	1.84	1.87	1.93	1.73	**1.92**	11.3%	2.4%	0.3%
Ecuador	0.59	0.63	0.65	0.68	0.68	0.67	0.70	0.74	0.76	0.66	**0.76**	16.4%	2.5%	0.1%
Peru	0.91	0.94	0.96	0.99	1.03	1.10	1.13	1.20	1.23	1.04	**1.20**	15.8%	2.8%	0.2%
Trinidad & Tobago	0.83	0.81	0.83	0.82	0.80	0.71	0.75	0.71	0.70	0.61	**0.61**	1.7%	-2.9%	0.1%
Venezuela	3.49	3.65	3.69	3.54	3.49	3.04	3.06	2.52	2.09	1.93	**2.03**	5.8%	-5.3%	0.3%
Central America	1.07	1.11	1.12	1.16	1.27	1.32	1.36	1.34	1.40	1.28	**1.44**	12.7%	2.9%	0.2%
Other Caribbean	1.58	1.56	1.52	1.50	1.54	1.60	1.56	1.61	1.66	1.47	**1.65**	13.0%	0.4%	0.3%
Other South America	1.19	1.21	1.25	1.22	1.24	1.35	1.33	1.35	1.28	1.16	**1.18**	1.5%	-0.1%	0.2%
Total S. & Cent. America	27.72	28.46	29.14	29.37	29.29	28.90	29.17	28.86	28.68	26.66	**28.46**	7.0%	0.3%	4.8%
Austria	1.42	1.49	1.48	1.42	1.42	1.47	1.50	1.47	1.54	1.44	**1.48**	3.2%	0.5%	0.2%
Belgium	2.60	2.49	2.56	2.38	2.42	2.60	2.63	2.61	2.70	2.44	**2.73**	12.2%	0.5%	0.5%
Bulgaria	0.81	0.77	0.71	0.76	0.81	0.76	0.78	0.78	0.76	0.70	**0.78**	12.6%	-0.3%	0.1%
Croatia	0.34	0.32	0.35	0.35	0.33	0.34	0.34	0.35	0.34	0.33	**0.36**	9.1%	0.5%	0.1%
Cyprus	0.12	0.11	0.10	0.10	0.11	0.11	0.12	0.12	0.12	0.10	**0.11**	5.7%	-1.2%	♦
Czech Republic	1.81	1.80	1.77	1.73	1.69	1.67	1.75	1.74	1.72	1.59	**1.68**	5.7%	-0.7%	0.3%
Denmark	0.79	0.73	0.77	0.74	0.72	0.72	0.73	0.72	0.70	0.63	**0.67**	7.4%	-1.6%	0.1%
Estonia	0.26	0.26	0.28	0.27	0.25	0.25	0.28	0.28	0.23	0.21	**0.24**	12.5%	-1.0%	♦
Finland	1.26	1.23	1.23	1.19	1.19	1.20	1.18	1.20	1.18	1.13	**1.16**	2.9%	-0.8%	0.2%
France	10.37	10.38	10.49	10.05	10.11	9.94	9.87	10.05	9.84	8.86	**9.41**	6.5%	-1.0%	1.6%
Germany	13.36	13.54	13.93	13.35	13.60	13.83	14.01	13.65	13.30	12.36	**12.64**	2.6%	-0.5%	2.1%
Greece	1.32	1.24	1.17	1.10	1.11	1.09	0.95	1.15	1.12	1.00	**1.05**	6.0%	-2.2%	0.2%
Hungary	0.97	0.90	0.86	0.86	0.90	0.92	0.97	0.98	0.99	0.97	**1.02**	4.6%	0.5%	0.2%
Iceland	0.20	0.20	0.21	0.21	0.22	0.22	0.23	0.24	0.23	0.21	**0.21**	2.5%	0.4%	♦
Ireland	0.62	0.61	0.59	0.59	0.63	0.65	0.66	0.67	0.67	0.63	**0.63**	-0.1%	0.2%	0.1%
Italy	7.19	7.00	6.69	6.34	6.52	6.54	6.62	6.67	6.56	5.92	**6.36**	7.6%	-1.2%	1.1%
Latvia	0.16	0.17	0.16	0.15	0.15	0.16	0.18	0.16	0.16	0.15	**0.15**	4.0%	-0.5%	♦
Lithuania	0.25	0.25	0.23	0.22	0.23	0.23	0.25	0.25	0.25	0.25	**0.25**	0.6%	0.3%	♦
Luxembourg	0.18	0.17	0.16	0.16	0.15	0.15	0.16	0.17	0.17	0.15	**0.15**	4.2%	-1.5%	♦
Netherlands	3.94	3.81	3.70	3.49	3.54	3.61	3.55	3.55	3.55	3.38	**3.47**	2.9%	-1.3%	0.6%
North Macedonia	0.12	0.11	0.11	0.10	0.11	0.11	0.11	0.11	0.11	0.10	**0.10**	7.7%	-1.5%	♦
Norway	1.83	2.02	1.90	1.95	1.97	2.00	2.01	1.98	1.85	2.01	**2.05**	1.9%	1.1%	0.3%
Poland	4.22	4.10	4.11	3.96	4.00	4.18	4.34	4.39	4.27	4.08	**4.44**	9.1%	0.5%	0.7%
Portugal	1.05	0.96	1.05	1.07	1.05	1.12	1.09	1.11	1.05	0.95	**0.96**	0.6%	-0.9%	0.2%
Romania	1.47	1.41	1.32	1.37	1.38	1.38	1.40	1.43	1.39	1.33	**1.40**	5.8%	-0.5%	0.2%
Slovakia	0.71	0.68	0.70	0.65	0.66	0.66	0.70	0.69	0.67	0.65	**0.71**	9.3%	♦	0.1%
Slovenia	0.30	0.29	0.29	0.30	0.27	0.29	0.29	0.30	0.29	0.28	**0.27**	-2.8%	-1.1%	♦
Spain	6.04	6.01	5.71	5.60	5.67	5.72	5.79	5.89	5.73	5.18	**5.59**	8.2%	-0.8%	0.9%
Sweden	2.21	2.35	2.20	2.19	2.26	2.22	2.30	2.25	2.34	2.23	**2.28**	2.9%	0.3%	0.4%
Switzerland	1.20	1.26	1.30	1.24	1.21	1.14	1.14	1.16	1.21	1.11	**1.07**	-3.2%	-1.1%	0.2%
Turkey	4.85	5.15	5.11	5.26	5.77	6.07	6.43	6.36	6.60	6.44	**6.83**	6.3%	3.5%	1.1%
Ukraine	5.31	5.19	4.93	4.35	3.61	3.78	3.51	3.64	3.45	3.31	**3.33**	1.2%	-4.5%	0.6%
United Kingdom	8.48	8.59	8.56	8.08	8.20	8.11	8.09	8.06	7.87	7.06	**7.18**	2.0%	-1.7%	1.2%
Other Europe	1.76	1.65	1.75	1.60	1.71	1.81	1.80	1.88	1.84	1.76	**1.62**	-7.8%	-0.8%	0.3%
Total Europe	87.51	87.26	86.46	83.19	83.96	85.09	85.74	86.06	84.79	78.93	**82.38**	4.7%	-0.6%	13.8%
Azerbaijan	0.52	0.54	0.55	0.56	0.62	0.61	0.60	0.62	0.65	0.64	**0.66**	3.6%	2.3%	0.1%
Belarus	1.08	1.17	1.06	1.06	0.96	0.98	1.00	1.11	1.11	1.03	**1.11**	7.4%	0.2%	0.2%
Kazakhstan	2.51	2.64	2.65	2.71	2.57	2.62	2.76	3.07	3.04	2.89	**2.85**	-1.2%	1.3%	0.5%
Russian Federation	29.09	29.16	28.79	28.86	28.37	28.99	29.17	30.24	30.02	28.88	**31.30**	8.7%	0.7%	5.3%
Turkmenistan	1.00	1.09	0.97	1.00	1.20	1.19	1.17	1.31	1.42	1.34	**1.60**	20.2%	4.9%	0.3%
Uzbekistan	2.01	1.96	1.96	2.03	1.94	1.85	1.91	1.92	1.92	1.88	**1.97**	5.2%	-0.2%	0.3%
Other CIS	0.73	0.76	0.73	0.74	0.74	0.75	0.78	0.85	0.82	0.80	**0.84**	5.2%	1.4%	0.1%
Total CIS	36.95	37.31	36.71	36.96	36.39	37.00	37.39	39.11	38.99	37.46	**40.32**	7.9%	0.9%	6.8%
Iran	9.12	9.22	9.56	9.99	9.94	10.40	10.83	11.19	11.74	12.02	**12.19**	1.7%	2.9%	2.0%
Iraq	1.41	1.54	1.71	1.62	1.57	1.80	1.90	2.29	2.23	1.99	**2.12**	7.2%	4.2%	0.4%
Israel	0.97	1.02	0.96	0.94	0.99	1.01	1.03	1.05	1.09	1.03	**1.05**	2.5%	0.8%	0.2%
Kuwait	1.45	1.51	1.55	1.57	1.63	1.62	1.65	1.68	1.73	1.61	**1.74**	8.0%	1.8%	0.3%
Oman	0.94	1.03	1.15	1.14	1.21	1.21	1.30	1.37	1.36	1.34	**1.50**	12.6%	4.8%	0.3%
Qatar	1.41	1.59	1.73	1.87	2.13	2.09	2.02	2.02	2.11	1.85	**1.93**	4.3%	3.2%	0.3%
Saudi Arabia	9.18	9.74	9.78	10.53	10.87	11.16	11.08	10.94	10.79	10.62	**10.82**	2.2%	1.7%	1.8%
United Arab Emirates	3.68	3.87	4.08	4.04	4.43	4.62	4.64	4.58	4.55	4.26	**4.53**	6.6%	2.1%	0.8%
Other Middle East	2.36	2.24	2.16	2.14	1.99	1.96	2.04	1.97	2.00	1.88	**1.96**	4.2%	-1.9%	0.3%
Total Middle East	30.53	31.75	32.68	33.85	34.76	35.87	36.49	37.09	37.59	36.60	**37.84**	3.7%	2.2%	6.4%
Algeria	1.67	1.83	1.93	2.11	2.22	2.22	2.25	2.42	2.50	2.36	**2.46**	4.9%	4.0%	0.4%
Egypt	3.38	3.51	3.49	3.44	3.50	3.69	3.84	3.84	3.77	3.54	**3.79**	7.4%	1.2%	0.6%
Morocco	0.74	0.75	0.77	0.78	0.79	0.80	0.84	0.87	0.95	0.86	**0.96**	10.8%	2.7%	0.2%
South Africa	5.20	5.12	5.14	5.20	5.10	5.33	5.32	5.13	5.36	4.95	**4.98**	0.8%	-0.4%	0.8%
Eastern Africa	1.67	1.72	1.86	2.04	2.12	2.09	2.21	2.33	2.32	2.19	**2.34**	7.5%	3.4%	0.4%
Middle Africa	0.75	0.81	0.92	0.96	0.95	0.96	0.95	0.99	1.01	0.99	**1.06**	7.4%	3.6%	0.2%
Western Africa	1.73	1.82	1.84	1.90	2.17	2.21	2.37	2.64	2.72	2.76	**2.98**	8.3%	5.6%	0.5%
Other Northern Africa	0.91	1.08	1.17	1.15	1.14	1.17	1.15	1.16	1.16	1.04	**1.22**	17.5%	3.0%	0.2%
Other Southern Africa	0.17	0.18	0.18	0.20	0.20	0.19	0.21	0.20	0.20	0.19	**0.20**	1.3%	1.6%	♦
Total Africa	16.21	16.82	17.30	17.77	18.19	18.67	19.13	19.58	19.99	18.89	**19.99**	6.2%	2.1%	3.4%
Australia	5.60	5.52	5.59	5.63	5.76	5.78	5.76	5.84	6.04	5.74	**5.72**	♦	0.2%	1.0%
Bangladesh	0.98	1.05	1.08	1.13	1.31	1.33	1.38	1.46	1.63	1.58	**1.65**	5.0%	5.4%	0.3%
China	112.80	117.43	121.85	125.41	127.02	129.15	133.60	138.88	143.92	147.58	**157.65**	7.1%	3.4%	26.5%
China Hong Kong SAR	1.19	1.14	1.17	1.14	1.18	1.21	1.29	1.31	1.24	0.93	**0.88**	-5.5%	-3.0%	0.1%
India	23.94	25.37	26.26	28.08	28.91	30.16	31.32	33.34	34.15	32.19	**35.43**	10.4%	4.0%	6.0%
Indonesia	6.79	7.03	6.78	6.86	7.00	7.07	7.39	8.19	8.75	8.10	**8.31**	2.9%	2.0%	1.4%
Japan	20.14	19.99	19.84	19.34	19.07	18.82	19.05	18.95	18.51	17.13	**17.74**	3.8%	-1.3%	3.0%
Malaysia	3.42	3.74	3.91	3.95	4.01	4.22	4.28	4.35	4.47	4.10	**4.19**	2.4%	2.1%	0.7%
New Zealand	0.85	0.86	0.86	0.90	0.91	0.92	0.93	0.93	0.95	0.86	**0.84**	-2.0%	-0.1%	0.1%
Pakistan	2.66	2.48	2.71	2.79	2.94	3.20	3.39	3.50	3.54	3.52	**3.86**	10.0%	3.8%	0.6%
Philippines	1.25	1.29	1.39	1.46	1.60	1.74	1.91	1.97	2.03	1.84	**1.96**	7.1%	4.6%	0.3%
Singapore	2.99	3.00	3.07	3.15	3.35	3.48	3.59	3.61	3.53	3.44	**3.46**	0.8%	1.5%	0.6%
South Korea	11.50	11.64	11.68	11.79	12.00	12.35	12.48	12.68	12.51	11.99	**12.58**	5.2%	0.9%	2.1%
Sri Lanka	0.27	0.28	0.29	0.31	0.34	0.37	0.37	0.38	0.39	0.37	**0.38**	3.1%	3.5%	0.1%
Taiwan	4.67	4.64	4.74	4.84	4.84	4.87	4.86	4.93	4.84	4.70	**4.98**	6.2%	0.6%	0.8%
Thailand	4.51	4.83	4.86	5.01	5.12	5.23	5.32	5.48	5.49	5.07	**5.11**	1.1%	1.2%	0.9%
Vietnam	2.15	2.25	2.38	2.63	3.00	3.24	3.48	3.91	4.34	4.22	**4.32**	2.6%	7.2%	0.7%
Other Asia Pacific	7.15	7.38	7.40	7.80	8.19	8.79	9.65	10.05	10.30	10.48	**10.65**	1.8%	4.1%	1.8%
Total Asia Pacific	207.66	214.59	220.48	226.61	230.59	235.62	243.28	252.74	259.51	256.69	**272.45**	6.4%	2.8%	45.8%
Total World	**520.90**	**528.18**	**537.56**	**543.52**	**548.14**	**555.91**	**566.66**	**582.38**	**587.43**	**564.01**	**595.15**	**5.8%**	**1.3%**	**100.0%**
of which: OECD	233.96	231.81	234.08	232.13	232.85	233.85	235.86	239.69	237.41	220.20	**229.89**	4.7%	-0.2%	38.6%
Non-OECD	286.94	296.36	303.48	311.39	315.29	322.05	330.81	342.69	350.01	343.82	**365.26**	6.5%	2.4%	61.4%
European Union	63.87	63.17	62.69	60.48	61.26	61.95	62.55	62.77	61.77	57.07	**60.11**	5.6%	-0.6%	10.1%

Source: statistics are taken from national statistical agencies, international organizations, and other proprietary sources.

*In this *Review*, primary energy comprises commercially traded fuels, including modern renewables used to generate electricity.
Energy from all sources of non-fossil power generation is accounted for on an input-equivalent basis. See the appendix or *bp.com/statisticalreview* for more details on this methodology.
♦Less than 0.05%.
Note: Growth rates are adjusted for leap years.

Primary energy: Consumption by fuel*

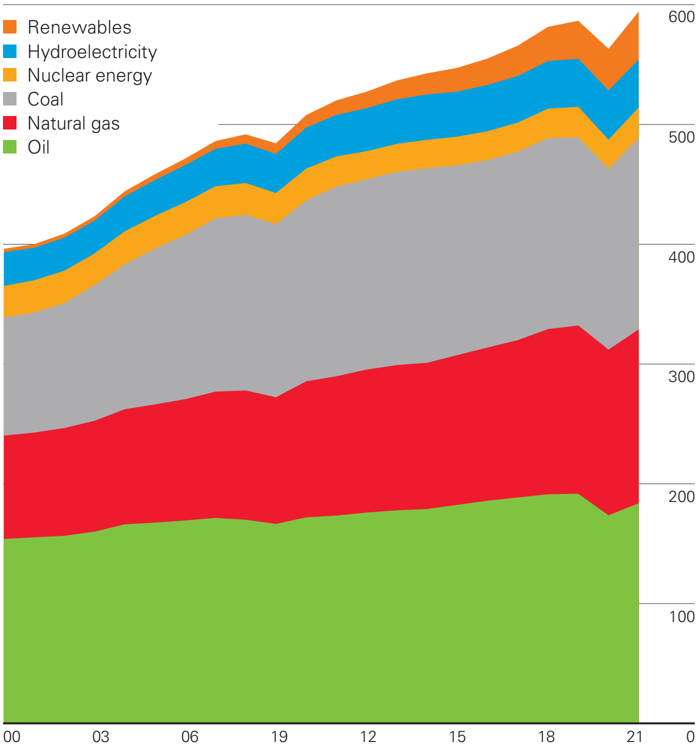
Exajoules	2020							2021						
	Oil	Natural gas	Coal	Nuclear energy	Hydro-electricity	Renew-ables	Total	Oil	Natural gas	Coal	Nuclear energy	Hydro-electricity	Renew-ables	**Total**
Canada	4.11	4.08	0.53	0.88	3.65	0.57	13.82	4.17	4.29	0.48	0.83	3.59	0.58	**13.94**
Mexico	2.47	3.01	0.24	0.10	0.25	0.35	6.43	2.56	3.18	0.23	0.11	0.33	0.39	**6.79**
US	32.52	29.95	9.20	7.54	2.67	6.65	88.54	35.33	29.76	10.57	7.40	2.43	7.48	**92.97**
Total North America	39.10	37.04	9.97	8.53	6.58	7.57	108.79	42.06	37.23	11.28	8.34	6.34	8.44	**113.70**
Argentina	1.07	1.58	0.04	0.10	0.22	0.16	3.17	1.23	1.65	0.07	0.10	0.18	0.20	**3.43**
Brazil	4.22	1.13	0.59	0.13	3.75	2.19	12.00	4.46	1.46	0.71	0.13	3.42	2.39	**12.57**
Chile	0.70	0.22	0.26	–	0.21	0.22	1.62	0.73	0.23	0.26	–	0.16	0.29	**1.66**
Colombia	0.56	0.47	0.17	–	0.47	0.06	1.73	0.70	0.45	0.13	–	0.56	0.07	**1.92**
Ecuador	0.40	0.02	†	–	0.23	0.01	0.66	0.49	0.02	†	–	0.24	0.01	**0.76**
Peru	0.41	0.26	0.04	–	0.29	0.05	1.04	0.52	0.29	0.05	–	0.30	0.05	**1.20**
Trinidad & Tobago	0.06	0.55	–	–	–	†	0.61	0.05	0.56	–	–	–	†	**0.61**
Venezuela	0.57	0.78	†	–	0.58	†	1.93	0.59	0.86	†	–	0.58	†	**2.03**
Other S. & Cent. America	2.29	0.29	0.21	–	0.79	0.33	3.91	2.55	0.36	0.24	–	0.78	0.35	**4.26**
Total S. & Cent. America	10.26	5.30	1.31	0.22	6.54	3.02	26.66	11.31	5.88	1.46	0.23	6.22	3.35	**28.46**
Austria	0.48	0.31	0.10	–	0.40	0.15	1.44	0.49	0.32	0.11	–	0.40	0.15	**1.48**
Belgium	1.15	0.61	0.10	0.31	†	0.26	2.44	1.30	0.61	0.10	0.46	†	0.25	**2.73**
Czech Republic	0.37	0.30	0.52	0.27	0.02	0.10	1.59	0.41	0.33	0.54	0.28	0.02	0.10	**1.68**
Finland	0.35	0.07	0.11	0.21	0.15	0.22	1.13	0.35	0.07	0.12	0.22	0.15	0.25	**1.16**
France	2.68	1.46	0.19	3.21	0.58	0.73	8.86	2.91	1.55	0.23	3.43	0.55	0.74	**9.41**
Germany	4.22	3.14	1.81	0.58	0.17	2.44	12.36	4.18	3.26	2.12	0.62	0.18	2.28	**12.64**
Greece	0.52	0.23	0.08	–	0.03	0.14	1.00	0.52	0.25	0.07	–	0.05	0.16	**1.05**
Hungary	0.32	0.37	0.07	0.15	†	0.07	0.97	0.34	0.39	0.06	0.14	†	0.08	**1.02**
Italy	2.11	2.43	0.21	–	0.43	0.74	5.92	2.35	2.61	0.23	–	0.41	0.76	**6.36**
Netherlands	1.51	1.30	0.17	0.04	†	0.36	3.38	1.51	1.26	0.23	0.03	†	0.43	**3.47**
Norway	0.38	0.16	0.03	–	1.33	0.11	2.01	0.38	0.15	0.03	–	1.35	0.13	**2.05**
Poland	1.29	0.76	1.72	–	0.02	0.30	4.08	1.38	0.84	1.88	–	0.02	0.32	**4.44**
Portugal	0.41	0.22	0.02	–	0.11	0.19	0.95	0.42	0.21	0.01	–	0.11	0.20	**0.96**
Romania	0.42	0.41	0.15	0.10	0.15	0.11	1.33	0.46	0.41	0.17	0.10	0.16	0.10	**1.40**
Spain	2.21	1.17	0.12	0.53	0.29	0.86	5.18	2.45	1.22	0.16	0.51	0.28	0.97	**5.59**
Sweden	0.53	0.05	0.07	0.45	0.68	0.45	2.23	0.54	0.05	0.06	0.48	0.67	0.49	**2.28**
Switzerland	0.37	0.12	†	0.21	0.35	0.06	1.11	0.37	0.13	†	0.17	0.34	0.06	**1.07**
Turkey	1.84	1.66	1.70	–	0.74	0.50	6.44	1.89	2.06	1.74	–	0.52	0.61	**6.83**
Ukraine	0.44	1.06	0.96	0.69	0.07	0.09	3.31	0.46	0.94	0.95	0.78	0.10	0.11	**3.33**
United Kingdom	2.35	2.63	0.20	0.46	0.06	1.35	7.06	2.50	2.77	0.21	0.41	0.05	1.24	**7.18**
Other Europe	2.30	1.06	1.12	0.35	0.62	0.68	6.13	2.38	1.12	0.96	0.34	0.75	0.71	**6.25**
Total Europe	26.25	19.51	9.48	7.56	6.22	9.91	78.93	27.57	20.56	10.01	7.98	6.12	10.14	**82.38**
Azerbaijan	0.18	0.45	†	–	0.01	†	0.64	0.19	0.46	†	–	0.01	†	**0.66**
Belarus	0.34	0.64	0.04	†	†	0.01	1.03	0.33	0.69	0.03	0.05	†	0.01	**1.11**
Kazakhstan	0.59	0.63	1.56	–	0.09	0.02	2.89	0.63	0.55	1.56	–	0.09	0.03	**2.85**
Russian Federation	6.34	15.25	3.29	1.96	2.01	0.04	28.88	6.71	17.09	3.41	2.01	2.02	0.06	**31.30**
Turkmenistan	0.27	1.07	–	–	†	†	1.34	0.28	1.32	–	–	†	†	**1.60**
Uzbekistan	0.16	1.57	0.10	–	0.05	†	1.88	0.17	1.67	0.07	–	0.05	†	**1.97**
Other CIS	0.15	0.21	0.09	0.03	0.33	†	0.80	0.16	0.22	0.10	0.02	0.33	†	**0.84**
Total CIS	8.03	19.80	5.08	1.99	2.49	0.07	37.46	8.47	21.99	5.17	2.08	2.51	0.10	**40.32**
Iran	3.22	8.43	0.07	0.06	0.22	0.02	12.02	3.25	8.68	0.07	0.03	0.14	0.02	**12.19**
Iraq	1.29	0.67	–	–	0.03	†	1.99	1.48	0.62	–	–	0.03	†	**2.12**
Israel	0.40	0.41	0.18	–	–	0.04	1.03	0.41	0.42	0.16	–	–	0.06	**1.05**
Kuwait	0.82	0.80	†	–	–	†	1.61	0.83	0.90	†	–	–	†	**1.74**
Oman	0.39	0.93	0.01	–	–	†	1.34	0.42	1.06	0.01	–	–	†	**1.50**
Qatar	0.45	1.40	†	–	–	†	1.85	0.49	1.44	†	–	–	†	**1.93**
Saudi Arabia	6.54	4.07	†	–	–	†	10.62	6.59	4.22	†	–	–	0.01	**10.82**
United Arab Emirates	1.62	2.51	0.08	0.01	–	0.04	4.26	1.81	2.50	0.07	0.10	–	0.05	**4.53**
Other Middle East	0.98	0.84	0.01	–	0.02	0.04	1.88	1.02	0.87	0.01	–	0.02	0.04	**1.96**
Total Middle East	15.70	20.05	0.36	0.07	0.27	0.15	36.60	16.30	20.72	0.34	0.13	0.18	0.18	**37.84**
Algeria	0.76	1.57	0.02	–	†	0.01	2.36	0.79	1.65	0.02	–	†	0.01	**2.46**
Egypt	1.18	2.10	0.03	–	0.14	0.09	3.54	1.28	2.23	0.05	–	0.14	0.10	**3.79**
Morocco	0.49	0.03	0.28	–	0.01	0.06	0.86	0.55	0.03	0.31	–	0.01	0.07	**0.96**
South Africa	0.96	0.14	3.56	0.13	0.01	0.15	4.95	1.04	0.14	3.53	0.09	0.01	0.16	**4.98**
Other Africa	3.84	1.69	0.28	–	1.23	0.13	7.17	4.20	1.87	0.30	–	1.29	0.14	**7.80**
Total Africa	7.24	5.53	4.17	0.13	1.38	0.44	18.89	7.86	5.92	4.21	0.09	1.45	0.47	**19.99**
Australia	1.88	1.55	1.69	–	0.14	0.48	5.74	1.93	1.42	1.63	–	0.15	0.59	**5.72**
Bangladesh	0.34	1.08	0.16	–	0.01	†	1.58	0.38	1.12	0.14	–	0.01	†	**1.65**
China	28.74	12.12	82.38	3.32	12.50	8.52	147.58	30.60	13.63	86.17	3.68	12.25	11.32	**157.65**
China Hong Kong SAR	0.61	0.18	0.14	–	–	†	0.93	0.55	0.17	0.15	–	–	†	**0.88**
India	9.08	2.18	17.40	0.40	1.55	1.58	32.19	9.41	2.24	20.09	0.40	1.51	1.79	**35.43**
Indonesia	2.70	1.35	3.25	–	0.23	0.57	8.10	2.83	1.33	3.28	–	0.23	0.63	**8.31**
Japan	6.49	3.75	4.57	0.39	0.73	1.20	17.13	6.61	3.73	4.80	0.55	0.73	1.32	**17.74**
Malaysia	1.43	1.38	0.98	–	0.26	0.05	4.10	1.46	1.48	0.89	–	0.30	0.06	**4.19**
New Zealand	0.30	0.16	0.06	–	0.23	0.11	0.86	0.29	0.14	0.07	–	0.23	0.11	**0.84**
Pakistan	0.88	1.48	0.64	0.09	0.38	0.04	3.52	1.02	1.61	0.67	0.14	0.36	0.05	**3.86**
Philippines	0.75	0.14	0.73	–	0.07	0.15	1.84	0.82	0.12	0.79	–	0.09	0.15	**1.96**
Singapore	2.96	0.45	0.02	–	–	0.01	3.44	2.93	0.48	0.03	–	–	0.01	**3.46**
South Korea	5.06	2.07	3.02	1.45	0.04	0.34	11.99	5.39	2.25	3.04	1.43	0.03	0.44	**12.58**
Sri Lanka	0.25	–	0.06	–	0.05	0.01	0.37	0.24	–	0.06	–	0.07	0.02	**0.38**
Taiwan	1.83	0.90	1.56	0.29	0.03	0.10	4.70	1.92	0.98	1.67	0.25	0.03	0.12	**4.98**
Thailand	2.26	1.69	0.76	–	0.04	0.31	5.07	2.25	1.69	0.81	–	0.04	0.32	**5.11**
Vietnam	1.00	0.32	2.10	–	0.69	0.11	4.22	0.94	0.26	2.15	–	0.71	0.27	**4.32**
Other Asia Pacific	5.30	1.29	2.43	–	1.40	0.07	10.48	5.35	1.27	2.47	–	1.47	0.08	**10.65**
Total Asia Pacific	67.59	31.21	120.70	5.94	17.61	13.64	256.69	70.65	33.06	127.63	6.46	17.44	17.22	**272.45**
Total World	**174.17**	**138.44**	**151.07**	**24.44**	**41.09**	**34.80**	**564.01**	**184.21**	**145.35**	**160.10**	**25.31**	**40.26**	**39.91**	**595.15**
of which: OECD	78.75	63.31	27.50	16.99	14.02	19.63	220.20	83.62	64.62	29.69	17.27	13.57	21.11	**229.89**
Non-OECD	95.42	75.13	123.57	7.46	27.07	15.17	343.82	100.59	80.73	130.41	8.04	26.69	18.80	**365.26**
European Union	20.24	13.69	5.97	6.20	3.25	7.72	57.07	21.32	14.28	6.74	6.62	3.24	7.92	**60.11**

Source: statistics are taken from national statistical agencies, international organizations, and other proprietary sources.

*In this *Review*, primary energy comprises commercially traded fuels, including modern renewables used to generate electricity.
Energy from all sources of non-fossil power generation is accounted for on an input-equivalent basis. See the appendix or *bp.com/statisticalreview* for more details on this methodology.
†Less than 0.005.
Note: Growth rates are adjusted for leap years.

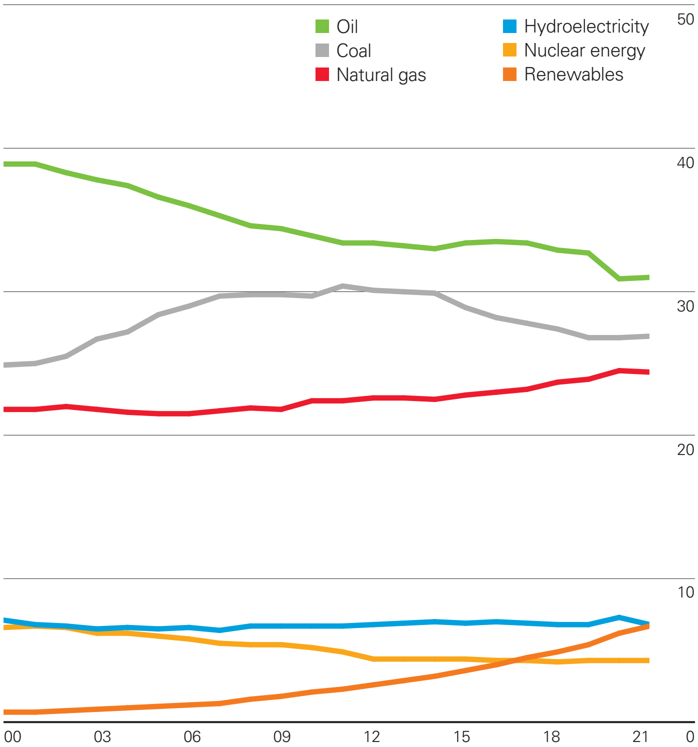
World consumption

Exajoules



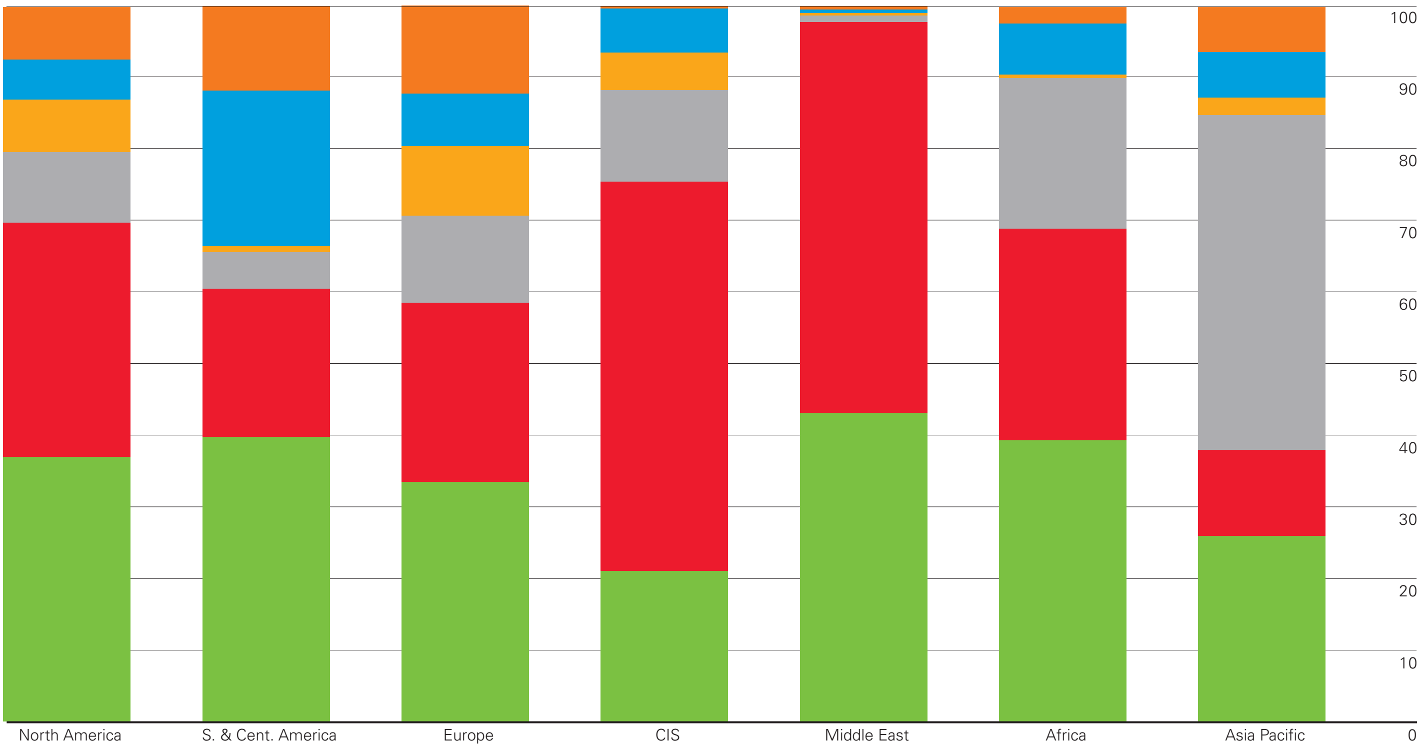
Shares of global primary energy

Percentage



Regional consumption pattern 2021

Percentage



Primary energy: Consumption per capita*

Gigajoules per capita	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	**2021**	Growth rate per annum 2021	2011-21
Canada	408.5	405.4	410.9	407.9	407.5	397.3	399.0	396.7	389.1	363.4	**364.4**	0.5%	-1.1%
Mexico	66.3	65.8	65.2	64.1	63.3	63.3	63.5	62.5	59.3	49.8	**52.1**	4.8%	-2.4%
US	297.1	287.0	292.6	293.3	288.2	285.7	284.8	293.5	289.8	267.1	**279.9**	5.1%	-0.6%
Total North America	247.5	240.1	243.9	243.7	239.8	237.3	236.7	241.9	237.9	218.2	**227.0**	4.3%	-0.9%
Argentina	79.1	81.4	83.7	82.6	83.2	82.0	81.1	79.7	74.7	70.1	**75.2**	7.6%	-0.5%
Brazil	59.7	60.2	61.8	62.7	60.6	58.7	58.9	58.7	59.4	56.4	**58.7**	4.3%	-0.2%
Chile	85.3	86.4	86.5	83.9	85.1	88.4	88.2	90.7	91.7	84.0	**84.9**	1.3%	◆
Colombia	33.2	35.1	35.0	36.4	36.4	37.7	37.5	37.8	38.4	34.1	**37.6**	10.8%	1.3%
Ecuador	38.9	40.5	41.1	42.6	41.8	40.9	41.7	43.4	43.8	37.2	**42.7**	15.0%	0.9%
Peru	31.1	31.9	32.3	32.7	33.9	35.6	36.1	37.4	37.9	31.5	**36.0**	14.7%	1.5%
Trinidad & Tobago	618.8	605.3	612.4	605.4	584.0	515.4	544.4	513.3	498.5	432.9	**438.3**	1.5%	-3.4%
Venezuela	120.9	124.5	123.8	117.8	116.0	101.7	104.2	87.2	73.3	67.7	**70.8**	4.8%	-5.2%
Central America	24.3	24.8	24.6	25.0	26.9	27.6	27.9	27.2	27.9	25.2	**27.9**	11.1%	1.4%
Other Caribbean	39.3	38.5	37.4	36.6	37.4	38.6	37.5	38.5	39.5	34.8	**39.0**	12.3%	-0.1%
Other South America	56.0	56.2	57.6	55.6	55.7	59.6	58.1	58.2	54.6	49.2	**49.3**	0.4%	-1.3%
Total S. & Cent. America	57.5	58.4	59.2	59.1	58.3	57.0	57.0	56.0	55.1	50.8	**53.7**	6.2%	-0.7%
Austria	168.7	176.7	174.5	166.1	164.4	168.2	170.8	166.0	173.5	161.7	**165.7**	2.8%	-0.2%
Belgium	235.5	224.4	229.6	212.4	214.1	229.7	231.4	228.6	234.6	211.1	**235.8**	12.0%	◆
Bulgaria	110.0	105.1	97.8	105.1	112.5	107.3	110.5	111.6	108.5	100.8	**114.0**	13.4%	0.4%
Croatia	79.4	73.9	81.3	81.6	78.0	81.8	82.7	86.5	84.9	81.3	**89.0**	9.7%	1.1%
Cyprus	140.8	131.4	118.7	120.3	123.8	133.7	135.8	133.4	131.7	113.7	**118.5**	4.5%	-1.7%
Czech Republic	172.2	171.1	167.9	164.1	160.6	158.1	164.9	163.8	161.1	148.7	**156.6**	5.6%	-0.9%
Denmark	142.1	131.2	136.5	131.5	126.1	126.3	126.3	123.9	121.1	107.6	**114.9**	7.1%	-2.1%
Estonia	198.2	200.4	211.7	202.5	187.2	193.1	213.6	211.0	169.5	159.1	**178.6**	12.6%	-1.0%
Finland	233.9	226.4	226.3	217.6	216.2	219.0	214.2	218.1	213.4	204.2	**209.3**	2.7%	-1.1%
France	164.5	163.8	164.4	156.5	156.9	153.9	152.3	154.8	151.2	135.9	**144.0**	6.3%	-1.3%
Germany	166.4	168.3	172.6	164.7	166.3	167.8	169.4	164.6	160.1	148.6	**152.0**	2.6%	-0.9%
Greece	118.8	112.4	106.5	100.8	102.7	101.1	88.1	107.0	104.4	93.2	**98.8**	6.3%	-1.8%
Hungary	97.4	91.2	86.7	87.0	91.9	93.8	99.1	99.9	101.3	99.8	**104.2**	4.7%	0.7%
Iceland	627.4	629.0	646.0	642.3	667.2	665.8	691.6	710.6	672.6	602.5	**612.4**	1.9%	-0.2%
Ireland	134.6	131.6	128.1	126.7	133.4	137.3	136.5	137.7	136.0	126.3	**125.0**	-0.8%	-0.7%
Italy	121.1	117.5	110.8	104.4	107.4	107.9	109.3	110.5	109.4	99.6	**107.2**	8.0%	-1.2%
Latvia	78.1	81.7	79.6	73.9	76.3	82.1	91.1	81.6	84.6	77.5	**81.1**	4.9%	0.4%
Lithuania	81.8	83.0	77.5	75.3	79.6	82.2	88.1	90.8	90.4	90.0	**91.6**	2.0%	1.1%
Luxembourg	338.0	324.2	301.9	285.7	271.2	261.2	267.1	274.3	273.9	230.2	**234.7**	2.3%	-3.6%
Netherlands	236.0	227.5	220.0	206.9	208.9	211.6	207.2	205.9	204.4	193.9	**198.2**	2.5%	-1.7%
North Macedonia	58.7	54.4	52.2	48.5	51.0	52.9	50.9	50.8	53.7	46.7	**50.3**	7.8%	-1.5%
Norway	368.3	402.5	372.9	379.7	379.8	381.2	380.0	372.5	346.4	373.9	**378.0**	1.4%	0.3%
Poland	110.9	107.7	108.1	104.3	105.4	110.0	114.3	115.6	112.3	107.6	**117.2**	9.2%	0.5%
Portugal	99.3	91.1	100.5	103.1	101.3	108.6	105.5	107.7	102.5	92.7	**93.1**	0.7%	-0.6%
Romania	73.1	70.6	66.1	68.8	69.5	70.0	71.5	73.3	72.0	69.0	**73.3**	6.5%	◆
Slovakia	131.3	126.0	129.1	120.4	121.4	121.8	128.5	126.3	122.0	119.3	**130.1**	9.3%	-0.1%
Slovenia	147.4	143.0	141.3	144.8	130.5	139.4	140.8	142.7	137.6	132.6	**128.1**	-3.1%	-1.4%
Spain	129.2	128.4	122.5	120.5	122.1	123.1	124.2	125.8	121.4	109.3	**117.4**	7.8%	-0.9%
Sweden	234.0	246.5	229.0	225.6	230.8	223.7	227.9	220.7	227.2	214.8	**218.9**	2.2%	-0.7%
Switzerland	150.3	157.2	159.2	150.2	145.3	135.2	134.4	135.6	140.5	128.3	**122.8**	-4.0%	-2.0%
Turkey	65.8	68.7	67.1	68.0	73.4	76.0	79.2	77.2	79.1	76.3	**80.2**	5.4%	2.0%
Ukraine	116.0	113.8	108.2	95.8	84.1	88.4	82.5	86.0	81.8	78.9	**80.4**	2.2%	-3.6%
United Kingdom	133.9	134.7	133.4	125.0	125.8	123.5	122.4	121.2	117.7	105.3	**106.9**	1.9%	-2.2%
Other Europe	83.7	78.9	84.0	77.3	82.8	88.3	88.0	92.3	90.4	86.7	**79.9**	-7.6%	-0.5%
Total Europe	133.2	132.4	130.6	125.1	126.2	127.5	128.0	128.1	125.9	117.0	**122.0**	4.6%	-0.9%
Azerbaijan	57.2	58.1	59.0	59.3	64.1	62.8	60.9	62.0	64.8	63.0	**64.6**	2.9%	1.2%
Belarus	115.0	124.4	112.6	112.6	101.8	104.0	105.9	117.0	117.7	109.3	**117.2**	7.6%	0.2%
Kazakhstan	152.2	157.6	155.7	156.4	146.2	147.1	152.6	167.4	163.7	154.1	**150.1**	-2.3%	-0.1%
Russian Federation	202.4	202.4	199.4	199.4	195.6	199.6	200.4	207.5	205.8	197.9	**214.5**	8.7%	0.6%
Turkmenistan	192.7	206.4	180.0	183.1	215.3	209.5	203.9	223.5	239.3	222.0	**262.6**	18.6%	3.1%
Uzbekistan	69.4	66.4	65.6	66.7	62.6	59.0	59.9	59.2	58.4	56.0	**58.1**	3.9%	-1.8%
Other CIS	37.3	38.2	35.8	36.2	35.4	35.2	36.0	38.8	37.0	35.4	**36.7**	3.9%	-0.2%
Total CIS	158.9	159.4	155.7	155.7	152.2	153.8	154.4	160.5	159.1	152.0	**163.0**	7.5%	0.3%
Iran	122.1	122.0	125.0	129.0	126.6	130.7	134.3	136.8	141.7	143.1	**143.5**	0.5%	1.6%
Iraq	45.9	48.2	51.5	47.1	44.1	49.1	50.6	59.6	56.6	49.4	**51.6**	4.7%	1.2%
Israel	130.1	133.8	124.6	119.8	124.4	124.9	125.3	125.3	127.7	118.8	**119.6**	0.9%	-0.8%
Kuwait	458.6	451.8	438.5	425.9	425.8	408.2	405.8	406.3	411.1	378.0	**402.5**	6.8%	-1.3%
Oman	289.8	293.5	304.9	283.8	290.5	274.2	285.2	297.9	295.1	290.1	**329.8**	14.0%	1.3%
Qatar	690.9	726.3	740.9	760.4	830.9	785.7	741.2	726.5	744.7	658.1	**686.2**	4.6%	-0.1%
Saudi Arabia	323.6	333.6	326.1	342.3	350.3	351.5	339.7	327.5	315.4	303.2	**301.3**	-0.3%	-0.7%
United Arab Emirates	422.8	437.7	454.4	442.8	478.4	492.5	487.7	474.9	465.7	465.1	**487.9**	5.2%	1.4%
Other Middle East	37.5	35.0	33.4	32.7	30.1	29.3	30.1	28.6	28.6	26.6	**26.9**	1.5%	-3.3%
Total Middle East	137.8	140.4	141.6	143.9	145.4	147.3	147.3	147.2	146.7	140.9	**143.0**	1.7%	0.4%
Algeria	45.6	48.9	50.7	54.2	56.0	54.8	54.3	57.3	58.1	53.7	**55.3**	3.2%	1.9%
Egypt	40.0	40.6	39.4	38.1	37.8	39.1	39.8	39.0	37.6	34.6	**36.4**	5.5%	-0.9%
Morocco	22.4	22.5	22.8	22.8	22.9	22.8	23.6	24.1	26.0	23.4	**25.6**	9.6%	1.3%
South Africa	99.8	96.7	95.6	95.2	91.8	94.7	93.1	88.6	91.4	83.4	**82.8**	-0.4%	-1.9%
Eastern Africa	4.4	4.3	4.6	4.9	5.0	4.7	4.9	5.0	4.9	4.5	**4.7**	4.8%	0.7%
Middle Africa	5.5	5.8	6.3	6.4	6.2	6.0	5.8	5.8	5.8	5.5	**5.7**	4.1%	0.4%
Western Africa	5.5	5.6	5.5	5.5	6.2	6.1	6.4	6.9	6.9	6.9	**7.2**	5.5%	2.8%
Other Northern Africa	51.8	61.5	65.6	64.0	62.8	63.9	62.2	61.9	60.8	54.1	**62.8**	16.4%	1.9%
Other Southern Africa	22.9	25.0	24.7	26.5	26.4	25.3	26.5	25.6	25.2	23.6	**23.5**	-0.2%	0.2%
Total Africa	15.2	15.4	15.4	15.4	15.4	15.4	15.4	15.3	15.3	14.1	**14.6**	3.6%	-0.4%
Australia	250.2	242.2	241.2	239.3	241.3	238.5	233.8	233.2	237.9	223.3	**222.1**	-0.3%	-1.2%
Bangladesh	6.6	6.9	7.1	7.3	8.4	8.4	8.7	9.1	10.0	9.6	**9.9**	4.0%	4.2%
China	81.9	84.8	87.5	89.5	90.2	91.3	94.0	97.2	100.3	102.5	**109.1**	6.8%	2.9%
China Hong Kong SAR	169.1	161.5	164.9	159.9	163.4	166.4	176.9	177.4	166.7	123.8	**115.9**	-6.2%	-3.7%
India	19.1	20.0	20.5	21.6	22.0	22.7	23.4	24.6	25.0	23.3	**25.4**	9.3%	2.9%
Indonesia	27.6	28.2	26.9	26.9	27.1	27.0	27.9	30.6	32.3	29.6	**30.0**	1.8%	0.8%
Japan	156.8	155.7	154.7	150.9	149.0	147.3	149.4	149.0	145.9	135.5	**140.8**	4.2%	-1.1%
Malaysia	119.0	128.4	132.5	132.1	132.3	137.3	137.3	137.8	139.6	126.5	**127.7**	1.2%	0.7%
New Zealand	194.5	194.6	194.8	201.1	198.4	196.1	195.4	190.4	191.6	170.6	**164.7**	-3.2%	-1.7%
Pakistan	14.5	13.2	14.1	14.3	14.7	15.7	16.3	16.5	16.3	15.9	**17.1**	7.9%	1.7%
Philippines	13.1	13.3	14.0	14.5	15.6	16.8	18.2	18.4	18.7	16.7	**17.6**	5.7%	3.0%
Singapore	574.2	563.7	566.9	575.9	605.0	621.1	639.1	639.0	620.3	609.5	**630.3**	3.7%	0.9%
South Korea	230.8	232.3	231.9	232.9	236.0	242.1	244.3	247.7	244.2	233.8	**245.1**	5.1%	0.6%
Sri Lanka	13.3	13.7	13.8	14.7	16.4	17.8	17.3	17.8	18.3	17.4	**17.8**	2.8%	2.9%
Taiwan	201.2	199.2	202.8	206.8	206.1	207.0	206.4	209.0	205.1	199.2	**210.8**	6.1%	0.5%
Thailand	66.8	71.2	71.3	73.2	74.5	75.8	76.9	79.0	78.8	72.6	**73.0**	0.9%	0.9%
Vietnam	24.2	25.1	26.2	28.7	32.3	34.6	36.8	40.9	45.0	43.4	**44.0**	1.8%	6.2%
Other Asia Pacific	610.4	601.2	603.9	615.2	646.5	666.1	687.4	689.3	672.3	661.7	**683.1**	3.5%	1.1%
Total Asia Pacific	53.0	54.2	55.2	56.2	56.6	57.3	58.7	60.5	61.6	60.4	**63.6**	5.6%	1.9%
Total World	**74.0**	**74.1**	**74.5**	**74.5**	**74.3**	**74.5**	**75.1**	**76.3**	**76.1**	**72.4**	**75.6**	**4.8%**	**0.2%**
of which: OECD	181.0	178.2	178.7	176.0	175.4	175.0	175.4	177.3	174.7	161.3	**167.9**	4.4%	-0.7%
Non-OECD	49.9	50.9	51.4	52.1	52.1	52.6	53.3	54.6	55.1	53.5	**56.2**	5.3%	1.2%
European Union	145.8	144.0	142.4	137.1	138.5	139.8	140.9	141.2	138.8	128.2	**135.0**	5.6%	-0.8%

*In this *Review*, primary energy comprises commercially traded fuels, including modern renewables used to generate electricity.
Energy from all sources of non-fossil power generation is accounted for on an input-equivalent basis. See the appendix or *bp.com/statisticalreview* for more details on this methodology.
Note: Growth rates are adjusted for leap years.

Carbon dioxide emissions from energy

Million tonnes of carbon dioxide	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Growth rate per annum 2021	Growth rate per annum 2011-21	Share 2021
Canada	550.2	546.5	560.7	566.4	566.2	547.7	563.7	573.5	571.3	517.3	**527.4**	2.2%	-0.4%	1.6%
Mexico	465.8	474.0	472.8	459.6	463.1	468.8	476.9	468.2	449.3	357.7	**373.8**	4.8%	-2.2%	1.1%
US	5336.2	5089.1	5246.6	5251.7	5137.5	5038.0	4978.8	5132.7	4980.9	4420.6	**4701.1**	6.6%	-1.3%	13.9%
Total North America	6352.2	6109.6	6280.2	6277.7	6166.8	6054.5	6019.4	6174.5	6001.6	5295.6	**5602.2**	6.1%	-1.2%	16.5%
Argentina	173.1	181.9	187.8	187.8	191.2	190.1	188.5	185.9	175.5	164.8	**181.7**	10.5%	0.5%	0.5%
Brazil	424.2	444.5	483.0	505.2	476.6	440.8	446.4	427.6	425.1	390.5	**436.6**	12.1%	0.3%	1.3%
Chile	87.0	89.4	91.1	88.4	88.9	94.1	92.4	93.0	94.6	84.4	**87.0**	3.3%	◆	0.3%
Colombia	69.1	77.5	80.5	85.6	86.7	91.4	84.5	86.6	92.7	80.9	**86.5**	7.3%	2.3%	0.3%
Ecuador	32.8	34.2	36.5	38.4	37.6	35.4	34.3	37.1	35.7	28.7	**35.5**	24.2%	0.8%	0.1%
Peru	45.0	46.0	46.9	47.8	50.2	54.8	54.0	56.5	58.5	46.4	**56.0**	21.0%	2.2%	0.2%
Trinidad & Tobago	24.6	24.2	25.5	24.8	24.0	21.9	21.3	20.6	18.3	16.1	**16.0**	-0.4%	-4.2%	◆
Venezuela	167.3	177.9	183.4	173.3	172.2	149.3	146.3	121.1	100.1	82.8	**89.2**	8.0%	-6.1%	0.3%
Central America	58.3	59.4	60.3	62.3	68.4	71.2	70.6	67.8	74.9	63.5	**72.5**	14.5%	2.2%	0.2%
Other Caribbean	110.2	107.4	104.8	103.9	107.1	110.7	107.0	110.2	113.9	100.2	**112.3**	12.4%	0.2%	0.3%
Other South America	33.5	34.0	34.7	35.0	35.5	37.4	38.1	39.5	39.4	36.2	**39.8**	10.3%	1.7%	0.1%
Total S. & Cent. America	1225.1	1276.4	1334.6	1352.6	1338.4	1297.1	1283.4	1246.0	1228.5	1094.6	**1213.1**	11.1%	-0.1%	3.6%
Austria	64.7	62.2	62.9	58.6	60.7	61.6	64.4	62.1	63.6	56.0	**58.4**	4.5%	-1.0%	0.2%
Belgium	120.6	116.3	117.3	109.0	115.2	116.9	118.8	125.4	121.7	105.5	**114.7**	9.0%	-0.5%	0.3%
Bulgaria	50.5	45.8	40.7	43.1	45.8	43.0	45.7	42.5	41.3	35.9	**41.7**	16.7%	-1.9%	0.1%
Croatia	18.2	16.6	16.1	15.8	16.2	16.7	17.1	16.3	16.3	14.8	**15.7**	6.4%	-1.4%	◆
Cyprus	8.7	8.1	7.3	7.3	7.5	8.1	8.3	8.2	8.2	7.0	**7.2**	3.9%	-1.8%	◆
Czech Republic	113.1	109.3	105.0	102.0	102.8	104.8	102.9	101.9	98.2	87.9	**92.4**	5.4%	-2.0%	0.3%
Denmark	46.3	40.9	43.4	40.0	36.7	37.9	35.3	35.6	32.5	26.8	**28.1**	5.0%	-4.9%	0.1%
Estonia	23.5	22.8	24.5	23.5	21.4	22.1	24.6	24.1	18.3	15.9	**18.0**	13.6%	-2.6%	0.1%
Finland	57.1	51.0	52.0	47.7	44.9	47.7	45.0	46.5	43.1	36.7	**37.2**	1.5%	-4.2%	0.1%
France	334.1	335.6	334.9	301.5	307.5	313.1	317.8	306.7	299.3	251.6	**273.6**	9.0%	-2.0%	0.8%
Germany	763.7	773.0	797.6	751.1	755.6	770.5	760.9	733.1	680.1	600.8	**628.9**	5.0%	-1.9%	1.9%
Greece	94.5	88.2	79.1	75.6	73.2	69.8	54.5	72.7	68.6	56.0	**56.5**	1.2%	-5.0%	0.2%
Hungary	48.7	44.6	42.0	41.3	43.8	44.7	46.9	47.3	47.1	44.6	**45.7**	2.8%	-0.6%	0.1%
Iceland	2.5	2.5	2.7	2.7	2.9	2.8	3.1	3.3	2.8	1.8	**1.8**	2.2%	-3.0%	◆
Ireland	38.9	38.8	37.4	37.1	38.9	40.5	39.3	39.1	37.5	33.0	**34.8**	5.6%	-1.1%	0.1%
Italy	388.5	371.0	341.4	318.8	334.4	331.4	335.5	336.1	328.6	283.8	**311.2**	9.9%	-2.2%	0.9%
Latvia	8.3	8.0	8.0	7.7	7.8	8.2	8.0	7.8	8.4	7.1	**7.4**	4.2%	-1.2%	◆
Lithuania	12.4	12.4	11.7	11.0	11.3	11.7	11.9	12.5	12.3	11.8	**12.1**	3.5%	-0.2%	◆
Luxembourg	11.7	11.4	10.9	10.5	10.1	10.0	10.3	10.8	10.9	9.0	**9.3**	3.6%	-2.3%	◆
Netherlands	219.4	212.2	208.2	197.6	206.7	209.8	202.7	198.8	194.8	174.6	**178.2**	2.3%	-2.1%	0.5%
North Macedonia	9.3	8.9	7.9	7.5	7.2	7.1	7.5	7.1	8.1	6.6	**6.9**	3.7%	-3.0%	◆
Norway	37.1	36.8	37.0	36.1	36.0	35.1	35.1	35.3	34.3	32.9	**33.4**	1.5%	-1.1%	0.1%
Poland	324.0	308.1	310.4	293.3	293.3	306.0	315.4	320.1	302.0	284.2	**309.1**	9.1%	-0.5%	0.9%
Portugal	51.4	50.7	49.3	49.6	53.1	52.4	57.3	54.3	50.3	40.7	**39.7**	-2.2%	-2.6%	0.1%
Romania	85.1	81.7	69.8	71.1	71.9	69.5	72.9	73.4	71.7	64.6	**70.3**	9.2%	-1.9%	0.2%
Slovakia	33.9	32.4	32.5	30.0	30.3	30.7	32.8	32.3	30.0	27.8	**31.7**	14.4%	-0.7%	0.1%
Slovenia	15.2	14.7	14.1	12.6	12.7	13.6	13.9	13.9	13.3	11.9	**11.6**	-1.8%	-2.7%	◆
Spain	308.5	306.3	274.5	271.9	287.9	280.6	298.3	293.0	276.2	223.6	**245.7**	10.2%	-2.3%	0.7%
Sweden	52.0	49.1	48.1	46.1	46.4	46.5	45.5	44.7	47.3	43.1	**40.1**	-6.8%	-2.6%	0.1%
Switzerland	40.1	41.4	43.6	38.7	39.5	38.0	38.8	37.2	38.1	32.7	**33.4**	2.4%	-1.8%	0.1%
Turkey	298.8	314.4	303.3	335.1	340.6	359.0	397.1	390.8	386.7	373.9	**403.3**	8.1%	3.0%	1.2%
Ukraine	303.2	299.1	286.5	246.8	195.1	215.6	187.9	198.7	185.5	172.9	**167.9**	-2.7%	-5.7%	0.5%
United Kingdom	494.0	510.2	498.0	456.1	437.8	413.6	401.3	393.5	377.5	316.9	**337.7**	6.8%	-3.7%	1.0%
Other Europe	121.0	112.8	113.0	102.3	111.6	116.8	120.5	119.3	119.3	115.6	**89.9**	-22.0%	-2.9%	0.3%
Total Europe	4599.1	4537.5	4431.0	4199.1	4207.0	4255.7	4277.5	4244.4	4073.7	3608.3	**3793.7**	5.4%	-1.9%	11.2%
Azerbaijan	28.6	29.6	30.3	31.0	33.6	33.1	32.0	33.5	34.4	33.7	**35.3**	5.2%	2.2%	0.1%
Belarus	59.3	60.8	60.2	59.2	54.9	55.0	55.7	60.6	60.9	56.1	**57.2**	2.2%	-0.4%	0.2%
Kazakhstan	202.0	212.0	211.9	214.7	202.2	204.0	214.2	238.5	235.0	221.2	**219.4**	-0.5%	0.8%	0.6%
Russian Federation	1558.8	1572.4	1538.8	1539.8	1507.0	1520.5	1507.8	1564.7	1548.8	1456.2	**1581.3**	8.9%	0.1%	4.7%
Turkmenistan	59.9	65.2	58.3	60.5	71.5	70.9	70.2	77.6	84.1	79.2	**94.3**	19.3%	4.6%	0.3%
Uzbekistan	113.4	109.8	111.1	114.4	108.8	104.1	106.9	109.7	109.5	108.3	**112.3**	4.0%	-0.1%	0.3%
Other CIS	24.6	26.6	25.5	27.4	28.6	29.1	29.4	33.2	31.2	29.9	**32.7**	9.8%	2.9%	0.1%
Total CIS	2046.5	2076.3	2036.0	2047.0	2006.6	2016.7	2016.2	2117.7	2103.9	1984.5	**2132.5**	7.7%	0.4%	6.3%
Iran	517.0	522.7	545.2	557.2	551.0	569.8	581.1	606.1	628.1	645.4	**660.5**	2.6%	2.5%	1.9%
Iraq	94.2	103.5	115.2	110.8	107.0	122.0	129.0	156.2	145.4	130.0	**141.0**	8.7%	4.1%	0.4%
Israel	68.6	74.2	66.9	64.1	66.8	66.1	66.8	67.0	69.2	63.0	**63.3**	0.7%	-0.8%	0.2%
Kuwait	88.9	92.2	94.6	96.3	99.6	97.8	99.8	101.9	103.7	95.9	**103.1**	7.9%	1.5%	0.3%
Oman	52.2	57.6	65.7	65.2	68.7	69.1	74.3	76.2	76.1	73.1	**82.1**	12.6%	4.6%	0.2%
Qatar	74.2	89.2	99.6	109.6	123.3	123.1	115.7	119.0	124.8	107.6	**115.3**	7.4%	4.5%	0.3%
Saudi Arabia	499.8	525.0	534.1	573.3	591.2	618.5	608.1	604.5	582.2	569.2	**575.3**	1.4%	1.4%	1.7%
United Arab Emirates	220.8	231.9	247.1	242.9	265.2	275.9	277.7	272.2	270.3	247.4	**260.1**	5.4%	1.7%	0.8%
Other Middle East	148.8	141.2	135.4	135.0	124.5	120.8	125.9	121.2	121.3	112.3	**116.6**	4.1%	-2.4%	0.3%
Total Middle East	1764.5	1837.3	1903.9	1954.4	1997.3	2063.1	2078.5	2124.2	2121.1	2044.0	**2117.2**	3.9%	1.8%	6.2%
Algeria	100.6	108.9	115.4	123.6	129.0	127.7	130.7	137.7	142.5	133.3	**139.7**	5.1%	3.3%	0.4%
Egypt	192.5	199.6	201.3	200.0	203.0	215.4	220.3	217.7	223.8	203.3	**219.6**	8.4%	1.3%	0.6%
Morocco	52.9	53.9	54.3	56.5	56.7	57.1	60.1	61.7	67.8	62.1	**68.9**	11.4%	2.7%	0.2%
South Africa	466.3	462.1	462.8	467.2	455.1	473.9	469.9	451.7	473.7	437.2	**438.9**	0.7%	-0.6%	1.3%
Eastern Africa	80.2	81.0	89.9	100.7	104.7	103.3	111.9	117.5	115.1	102.9	**110.5**	7.6%	3.3%	0.3%
Middle Africa	39.3	43.3	48.7	51.1	50.7	50.0	47.5	47.9	48.4	45.6	**49.7**	9.3%	2.4%	0.1%
Western Africa	103.5	107.4	109.2	110.9	126.5	130.4	139.5	156.7	159.8	161.6	**174.8**	8.5%	5.4%	0.5%
Other Northern Africa	57.4	70.9	75.7	75.3	71.7	70.6	70.4	71.2	71.5	63.5	**75.0**	18.4%	2.7%	0.2%
Other Southern Africa	10.9	12.3	12.5	13.7	13.8	13.6	14.5	14.4	14.4	13.2	**13.7**	4.3%	2.3%	◆
Total Africa	1103.6	1139.3	1169.8	1198.9	1211.1	1242.0	1264.7	1276.4	1317.1	1222.6	**1290.7**	5.9%	1.6%	3.8%
Australia	406.8	398.1	395.0	398.5	407.2	405.6	403.7	401.5	406.6	378.2	**369.4**	-2.1%	-1.0%	1.1%
Bangladesh	56.5	60.4	62.7	65.4	78.0	79.2	83.2	89.2	99.1	96.8	**100.9**	4.5%	6.0%	0.3%
China	8793.5	8978.7	9219.1	9256.7	9226.2	9234.4	9444.9	9676.0	9868.5	9974.3	**10523.0**	5.8%	1.8%	31.1%
China Hong Kong SAR	92.0	88.7	91.5	89.7	90.5	92.7	98.9	100.1	94.6	68.1	**64.6**	-5.0%	-3.5%	0.2%
India	1728.4	1861.4	1934.0	2090.7	2146.5	2241.5	2320.2	2442.6	2465.8	2281.2	**2552.8**	12.2%	4.0%	7.5%
Indonesia	470.6	489.5	460.6	469.0	489.0	487.8	514.6	565.6	613.2	560.8	**572.5**	2.4%	2.0%	1.7%
Japan	1207.5	1293.8	1282.2	1248.7	1209.1	1189.3	1182.7	1161.5	1121.7	1029.5	**1053.7**	2.6%	-1.4%	3.1%
Malaysia	209.8	227.7	234.1	243.1	247.1	252.6	241.2	251.1	256.9	240.6	**238.6**	-0.6%	1.3%	0.7%
New Zealand	34.4	36.0	35.6	35.6	36.2	35.5	37.6	37.4	38.5	33.4	**32.7**	-1.8%	-0.5%	0.1%
Pakistan	145.2	144.6	145.3	151.7	160.3	176.5	188.7	196.9	207.1	206.3	**226.4**	10.0%	4.5%	0.7%
Philippines	80.7	83.1	91.9	97.3	106.2	116.4	128.9	133.7	140.7	127.2	**136.8**	7.8%	5.4%	0.4%
Singapore	192.7	192.0	191.4	191.0	202.8	217.0	228.9	225.2	217.3	211.6	**215.7**	2.2%	1.1%	0.6%
South Korea	613.7	612.6	620.0	615.0	622.8	633.2	641.8	659.1	635.3	588.8	**603.8**	2.8%	-0.2%	1.8%
Sri Lanka	16.4	18.2	15.9	19.6	21.6	24.7	24.4	23.4	25.3	23.8	**22.8**	-3.9%	3.4%	0.1%
Taiwan	273.0	266.8	268.4	275.3	275.5	280.8	286.7	284.7	279.1	264.6	**279.2**	5.8%	0.2%	0.8%
Thailand	249.3	266.7	265.8	273.7	281.1	286.8	287.5	293.2	288.4	270.0	**269.4**	◆	0.8%	0.8%
Vietnam	132.1	129.7	134.5	151.0	184.2	198.7	200.4	241.9	292.6	276.3	**272.7**	-1.0%	7.5%	0.8%
Other Asia Pacific	431.5	443.3	422.2	447.7	476.1	519.6	597.9	613.1	641.0	630.4	**638.0**	1.5%	4.0%	1.9%
Total Asia Pacific	14813.5	15264.7	15555.4	15790.4	15910.2	16091.5	16486.7	16965.4	17249.9	16829.0	**17734.6**	5.7%	1.8%	52.3%
Total World	**31904.6**	**32241.1**	**32710.9**	**32820.2**	**32837.4**	**33020.6**	**33426.4**	**34148.5**	**34095.8**	**32078.5**	**33884.1**	**5.9%**	**0.6%**	**100.0%**
of which: OECD	12842.4	12655.7	12741.3	12518.7	12436.2	12348.5	12346.5	12459.4	12083.5	10744.7	**11292.5**	5.4%	-1.3%	33.3%
Non-OECD	19062.2	19585.4	19969.6	20301.4	20401.2	20672.1	21079.9	21689.2	22012.3	21333.9	**22591.5**	6.2%	1.7%	66.7%
European Union	3300.8	3218.7	3146.0	2980.8	3043.7	3075.7	3095.7	3069.0	2931.5	2564.2	**2728.2**	6.7%	-1.9%	8.1%

Source: statistics are taken from national statistical agencies, international organizations, and other proprietary sources.

◆Less than 0.05%.

Notes: The carbon emissions above reflect only those through consumption of oil, gas and coal for combustion related activities, and are based on 'Default CO_2 Emissions Factors for Combustion' listed by the IPCC in its Guidelines for National Greenhouse Gas Inventories (2006). This does not allow for any carbon that is sequestered, for other sources of carbon emissions, or for emissions of other greenhouse gases. Our data is therefore not comparable to official national emissions data.
Growth rates are adjusted for leap years.

Natural gas: Flaring

Billion cubic metres	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	**2021**	Growth rate per annum 2021	Growth rate per annum 2011-21	Share 2021
Canada	1.6	1.8	1.6	2.1	1.9	1.4	1.4	1.4	1.1	1.2	**1.3**	1.0%	-2.6%	0.8%
Mexico	3.5	1.4	5.1	5.7	6.0	5.8	4.5	4.5	5.3	6.7	**7.8**	17.4%	8.3%	5.1%
US	5.8	5.8	9.3	11.4	12.0	9.0	9.6	14.1	17.3	12.4	**9.7**	-21.5%	5.3%	6.3%
Total North America	10.9	8.9	16.0	19.2	19.9	16.2	15.6	20.1	23.7	20.3	**18.8**	-7.3%	5.5%	12.3%
Argentina	0.8	0.9	0.8	0.9	0.7	0.6	0.6	0.8	1.0	1.1	**1.3**	17.1%	4.9%	0.9%
Bolivia	0.3	0.2	†	†	0.1	†	†	†	†	0.1	**†**	-18.7%	-15.6%	♦
Brazil	1.7	1.4	1.5	1.7	1.5	1.7	1.3	1.2	1.3	1.1	**1.1**	-4.7%	-4.4%	0.7%
Colombia	0.7	0.8	0.9	0.8	0.8	0.6	0.5	0.5	0.5	0.4	**0.3**	-13.7%	-6.7%	0.2%
Peru	0.2	0.1	0.2	0.2	0.3	0.2	0.1	0.1	0.1	0.1	**0.1**	-9.5%	-2.0%	0.1%
Trinidad & Tobago	0.7	0.6	0.4	0.3	0.3	0.2	0.2	0.2	0.4	0.2	**0.2**	-21.1%	-13.9%	0.1%
Venezuela	9.1	11.0	9.8	10.5	9.9	10.2	8.0	9.3	10.5	9.4	**9.2**	-1.7%	0.1%	6.0%
Other S. & Cent. America	0.6	0.6	1.0	1.3	1.3	1.4	1.3	1.1	1.1	1.5	**1.6**	4.7%	10.1%	1.0%
Total S. & Cent. America	14.0	15.7	14.5	15.8	14.9	14.9	12.1	13.2	15.0	14.0	**13.8**	-0.5%	-0.1%	9.1%
Denmark	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	**0.1**	-6.7%	-3.8%	♦
Germany	–	–	†	†	†	†	†	†	†	†	**†**	30.2%	–	♦
Italy	–	–	†	0.1	†	0.1	†	†	†	†	**†**	6.3%	–	♦
Netherlands	–	–	†	†	†	†	†	†	†	†	**†**	10.6%	–	♦
Norway	0.6	0.7	0.4	0.4	0.4	0.4	0.2	0.2	0.2	0.1	**0.2**	22.4%	-11.8%	0.1%
Poland	–	–	†	†	†	0.1	†	0.1	†	0.1	**0.1**	39.3%	–	0.1%
Romania	–	–	†	0.1	†	†	†	†	†	†	**†**	62.5%	–	♦
Ukraine	–	–	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	**0.1**	32.5%	–	0.1%
United Kingdom	0.6	1.2	1.4	1.4	1.4	1.4	1.4	1.2	1.2	1.1	**0.9**	-19.0%	3.8%	0.6%
Other Europe	–	–	0.4	0.5	0.5	0.4	0.3	0.4	0.4	0.4	**0.4**	4.6%	–	0.3%
Total Europe	1.3	1.9	2.8	2.8	2.7	2.8	2.3	2.2	2.1	2.0	**1.9**	-4.5%	3.4%	1.2%
Azerbaijan	1.1	0.6	0.4	0.3	0.2	0.2	0.2	0.2	0.3	0.2	**0.2**	7.0%	-16.9%	0.1%
Kazakhstan	2.4	2.5	3.7	3.8	3.6	2.6	2.4	2.0	1.5	1.5	**1.5**	2.0%	-4.9%	1.0%
Russian Federation	17.5	17.8	20.9	19.5	21.1	23.9	21.0	21.2	23.8	25.1	**26.4**	5.6%	4.2%	17.3%
Turkmenistan	0.5	0.7	2.2	2.0	1.8	1.8	1.6	1.5	1.4	1.7	**1.2**	-28.7%	9.2%	0.8%
Uzbekistan	–	0.8	1.5	1.3	1.1	1.0	0.8	0.8	0.6	0.5	**0.5**	-14.5%	–	0.3%
Other CIS	–	–	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	**0.1**	24.9%	–	♦
Total CIS	21.5	22.5	28.8	27.0	27.8	29.6	26.1	25.8	27.7	28.9	**29.8**	3.1%	3.3%	19.5%
Bahrain	–	–	0.1	†	†	0.1	0.1	0.1	0.2	0.3	**0.1**	-42.2%	–	0.1%
Iran	16.2	17.1	12.0	13.1	12.7	17.0	18.5	18.1	14.6	14.2	**18.5**	30.7%	1.3%	12.1%
Iraq	9.4	11.7	13.3	13.8	15.8	17.5	17.5	17.6	17.7	17.2	**17.7**	3.5%	6.6%	11.6%
Kuwait	0.2	0.2	1.5	1.6	1.0	1.3	0.9	1.0	0.8	0.9	**1.0**	17.4%	17.1%	0.7%
Oman	0.9	1.3	2.3	2.5	2.4	2.8	2.6	2.6	2.6	2.5	**2.6**	3.1%	11.1%	1.7%
Qatar	0.5	0.7	1.7	1.6	1.4	1.4	1.3	1.3	1.6	1.3	**1.4**	5.8%	9.6%	0.9%
Saudi Arabia	–	–	2.7	2.5	2.7	3.1	2.9	2.9	2.6	2.8	**2.8**	-1.6%	–	1.8%
Syria	0.2	0.1	0.4	0.4	0.5	0.6	1.2	0.7	1.0	1.0	**1.1**	6.2%	16.3%	0.7%
United Arab Emirates	1.0	1.0	1.3	1.1	1.2	1.0	1.1	1.3	1.0	1.1	**1.0**	-7.5%	0.3%	0.6%
Yemen	0.2	0.3	1.1	1.2	0.6	0.3	0.4	0.5	0.7	0.9	**0.9**	8.1%	14.2%	0.6%
Other Middle East	†	†	†	†	†	†	†	†	†	†	**†**	-43.7%	-19.3%	♦
Total Middle East	28.7	32.4	36.5	37.7	38.4	45.0	46.5	45.9	42.8	42.0	**47.0**	12.3%	5.1%	30.8%
Algeria	3.5	3.4	8.8	9.2	9.6	9.7	9.2	9.4	9.7	9.3	**8.1**	-12.6%	8.7%	5.3%
Egypt	0.6	0.4	2.6	3.0	3.0	3.0	2.5	2.4	2.5	2.5	**2.3**	-8.2%	14.8%	1.5%
Libya	1.3	3.8	4.1	2.9	2.7	2.4	4.0	4.7	5.1	2.5	**5.9**	138.8%	16.7%	3.9%
Nigeria	13.9	12.9	9.2	8.3	7.5	7.2	7.5	7.3	7.8	7.0	**6.5**	-7.5%	-7.4%	4.2%
Other Africa	13.0	12.1	9.3	9.7	10.4	10.4	9.4	8.5	8.2	7.8	**7.4**	-5.1%	-5.5%	4.9%
Total Africa	32.3	32.5	34.1	33.0	33.2	32.8	32.6	32.3	33.3	29.2	**30.3**	4.0%	-0.6%	19.8%
Australia	0.1	0.1	0.8	1.1	1.1	0.7	0.7	0.9	1.4	1.0	**0.8**	-16.5%	18.7%	0.5%
Bangladesh	–	–	†	†	†	†	†	†	†	†	**†**	25.3%	–	♦
Brunei	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.2	0.3	0.2	**0.2**	0.3	†	†
China	1.9	1.9	2.4	2.5	2.5	2.3	1.8	2.0	2.2	2.9	**2.7**	-6.5%	3.7%	1.8%
India	0.9	1.0	2.2	2.4	2.7	2.4	2.0	1.8	1.8	2.0	**1.9**	-7.8%	7.3%	1.2%
Indonesia	4.9	6.4	3.3	3.2	3.0	2.9	2.4	2.1	2.1	2.0	**1.7**	-13.0%	-9.9%	1.1%
Malaysia	1.3	1.3	3.1	3.6	3.9	3.4	3.1	2.5	2.7	2.7	**2.1**	-19.8%	5.4%	1.4%
Myanmar	0.1	–	0.1	0.1	0.1	†	†	†	†	†	**†**	-20.3%	-17.2%	♦
Pakistan	–	0.1	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.3	**0.3**	-6.8%	–	0.2%
Thailand	–	–	0.4	0.4	0.5	0.5	0.4	0.3	0.3	0.4	**0.4**	2.0%	–	0.2%
Vietnam	0.5	0.6	1.1	1.0	1.0	0.9	1.0	0.8	0.8	0.7	**0.6**	-15.3%	0.6%	0.4%
Other Asia Pacific	1.0	0.9	1.3	1.7	1.4	1.4	0.9	0.9	0.6	0.6	**0.8**	23.1%	-2.9%	0.5%
Total Asia Pacific	10.5	12.0	14.8	15.8	16.1	14.6	12.5	11.5	12.3	12.4	**11.1**	-10.4%	0.6%	7.3%
Total World	**119.2**	**125.9**	**147.5**	**151.3**	**153.0**	**156.0**	**147.6**	**151.0**	**156.9**	**148.8**	**152.7**	**2.9%**	**2.5%**	**100.0%**
of which: OECD	13.3	11.9	20.3	23.8	24.4	20.3	19.1	23.7	27.7	23.6	**21.8**	-7.6%	5.0%	14.3%
Non-OECD	105.8	114.0	127.2	127.5	128.6	135.8	128.5	127.4	129.2	125.2	**130.9**	4.9%	2.1%	85.7%
European Union	0.1	0.1	0.7	0.8	0.7	0.7	0.5	0.6	0.6	0.6	**0.6**	7.9%	22.6%	0.4%

♦Less than 0.05%.

Notes: Annual changes and shares of total are calculated using billion cubic metres figures. Data from 2013 onward: Made utilizing VIIRS Nightfire (VNF) nightly data produced by the Earth Observation Group, Payne Institute for Public Policy, Colorado School of Mines. These data include flaring from upstream, downstream oil and gas. Data before 2013: Cedigaz. These data include flaring from upstream. As far as possible, the calculation has used flared volumes based on standard cubic metres (measured at 15°C and 1013 mbar); as they are derived directly from measures of energy content using an average conversion factor and have been standardized using a Gross Calorific Value (GCV) of 40 MJ/m³, they do not necessarily equate with gas volumes expressed in the original databases.

Growth rates are adjusted for leap years.

Carbon dioxide equivalent emissions from energy, process emissions, methane, and flaring

Million tonnes of carbon dioxide equivalent	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Growth rate per annum 2021	Growth rate per annum 2011-21	Share 2021
Canada	602.9	600.5	616.1	625.7	626.2	609.1	629.4	642.1	639.3	582.2	**595.4**	2.5%	-0.1%	1.5%
Mexico	534.0	539.5	544.6	532.4	534.2	536.3	538.3	532.1	511.5	424.7	**444.0**	4.8%	-1.8%	1.1%
US	5688.3	5458.7	5633.0	5670.5	5561.8	5435.8	5394.0	5593.6	5489.6	4883.7	**5167.9**	6.1%	-1.0%	13.3%
Total North America	6825.2	6598.7	6793.7	6828.6	6722.2	6581.2	6561.7	6767.8	6640.4	5890.6	**6207.2**	5.7%	-0.9%	15.9%
Argentina	201.5	210.7	216.4	216.4	220.1	218.3	216.6	215.5	207.0	193.8	**212.8**	10.1%	0.5%	0.5%
Brazil	474.8	497.5	538.4	563.9	534.5	496.4	501.1	480.9	481.0	448.6	**495.8**	10.8%	0.4%	1.3%
Chile	88.6	90.9	92.6	89.8	90.4	95.7	93.7	94.3	95.9	85.7	**88.2**	3.2%	◆	0.2%
Colombia	89.4	99.2	102.8	108.2	109.4	112.4	105.1	107.2	114.4	98.7	**105.4**	7.1%	1.7%	0.3%
Ecuador	43.0	44.3	47.7	50.5	49.2	47.2	45.6	47.9	46.9	39.1	**46.3**	18.7%	0.7%	0.1%
Peru	51.6	53.2	54.7	56.4	58.5	62.9	61.6	64.1	66.3	53.9	**63.3**	17.9%	2.1%	0.2%
Trinidad & Tobago	34.2	33.6	34.4	33.5	32.0	28.9	28.3	27.7	25.8	22.2	**21.2**	-4.1%	-4.7%	0.1%
Venezuela	332.1	356.5	361.7	350.9	342.8	310.4	284.2	242.7	204.6	162.7	**171.1**	5.5%	-6.4%	0.4%
Central America	62.4	63.8	64.7	66.8	73.0	75.6	75.2	72.4	79.3	67.9	**76.9**	13.6%	2.1%	0.2%
Other Caribbean	113.8	111.0	108.7	108.1	111.3	114.7	110.8	114.1	117.7	104.1	**116.1**	11.9%	0.2%	0.3%
Other South America	41.4	42.6	43.7	44.6	45.2	47.0	47.5	48.5	47.8	44.6	**48.4**	8.8%	1.6%	0.1%
Total S. & Cent. America	1532.8	1603.4	1666.1	1689.2	1666.3	1609.4	1569.8	1515.3	1486.9	1321.2	**1445.6**	9.7%	-0.6%	3.7%
Austria	66.5	64.1	64.7	60.4	62.5	63.5	66.3	64.0	65.5	57.9	**60.3**	4.4%	-1.0%	0.2%
Belgium	123.4	118.9	120.0	111.7	117.7	119.4	121.1	128.0	124.6	108.2	**117.5**	8.8%	-0.5%	0.3%
Bulgaria	65.1	59.4	52.3	56.1	60.4	56.2	59.8	54.8	53.2	45.3	**53.2**	17.7%	-2.0%	0.1%
Croatia	20.5	18.6	18.2	17.9	18.3	18.7	19.2	18.3	18.1	16.6	**17.4**	5.4%	-1.6%	◆
Czech Republic	114.8	110.9	106.3	103.5	104.4	106.5	104.7	103.8	100.2	89.9	**94.3**	5.2%	-1.9%	0.2%
Denmark	48.9	43.3	45.7	42.3	39.0	40.3	37.8	37.9	34.5	28.7	**29.9**	4.5%	-4.8%	0.1%
Estonia	23.9	23.3	24.9	24.0	21.6	22.3	25.0	24.5	18.7	16.0	**18.1**	13.5%	-2.8%	◆
France	343.8	344.7	344.1	310.0	315.7	321.5	326.0	315.0	307.8	259.3	**281.3**	8.8%	-2.0%	0.7%
Germany	781.9	790.9	814.9	768.1	772.3	787.4	778.8	750.6	697.6	618.1	**646.7**	4.9%	-1.9%	1.7%
Greece	96.9	91.3	82.8	79.4	76.8	73.6	58.2	76.1	71.9	59.0	**59.5**	1.1%	-4.8%	0.2%
Hungary	49.5	45.5	42.7	42.1	44.7	45.6	47.9	48.6	48.6	46.0	**47.1**	2.7%	-0.5%	0.1%
Ireland	39.9	40.0	38.5	38.5	40.5	42.5	41.5	41.3	39.6	35.0	**36.7**	5.1%	-0.8%	0.1%
Italy	406.2	386.0	355.0	331.5	347.1	343.6	347.8	348.4	341.0	295.3	**322.1**	9.4%	-2.3%	0.8%
Lithuania	12.7	12.8	12.1	11.4	11.8	12.1	12.3	13.0	12.9	12.3	**12.7**	3.3%	◆	◆
Netherlands	220.1	212.8	208.9	198.2	207.3	210.3	203.2	199.2	195.1	174.8	**178.4**	2.3%	-2.1%	0.5%
North Macedonia	12.7	11.9	10.7	10.3	9.7	9.4	9.8	18.6	10.5	8.9	**8.8**	-0.3%	-3.6%	◆
Norway	39.8	39.6	39.3	38.2	38.1	37.3	37.1	37.1	36.0	34.7	**35.2**	1.6%	-1.2%	0.1%
Poland	332.8	315.9	317.8	301.3	301.2	314.3	324.0	329.4	311.3	293.6	**318.4**	8.8%	-0.4%	0.8%
Romania	90.8	87.4	75.1	76.7	77.8	75.1	78.7	79.3	77.8	70.7	**76.5**	8.5%	-1.7%	0.2%
Slovakia	35.2	33.5	33.7	31.3	31.6	32.0	34.2	33.6	31.4	29.3	**33.2**	13.7%	-0.6%	0.1%
Slovenia	15.6	15.0	14.5	13.1	13.1	14.0	14.3	14.4	13.8	12.4	**12.1**	-1.7%	-2.5%	◆
Spain	318.1	315.0	282.5	281.2	297.3	290.2	307.8	302.9	285.4	231.9	**254.5**	10.0%	-2.2%	0.7%
Sweden	53.5	50.7	49.6	47.6	48.0	48.2	47.0	46.3	48.7	44.5	**41.4**	-6.6%	-2.5%	0.1%
Turkey	330.4	345.9	337.4	369.8	375.2	396.7	436.8	430.5	419.4	415.0	**447.9**	8.2%	3.1%	1.1%
Ukraine	317.0	311.8	299.7	259.0	206.3	227.1	199.0	210.4	197.2	184.5	**179.7**	-2.3%	-5.5%	0.5%
United Kingdom	506.0	522.2	510.4	468.5	450.8	427.2	414.6	406.7	390.6	329.1	**348.4**	6.2%	-3.7%	0.9%
Other Europe	334.9	318.8	320.7	297.0	310.7	317.9	325.8	320.0	315.5	285.1	**259.0**	-8.9%	-2.5%	0.7%
Total Europe	4800.6	4730.3	4622.4	4389.0	4400.1	4453.1	4478.9	4452.8	4267.0	3802.0	**3990.2**	5.2%	-1.8%	10.2%
Azerbaijan	40.0	40.3	40.9	41.3	43.3	42.6	41.2	43.2	44.5	43.2	**45.7**	5.9%	1.3%	0.1%
Belarus	62.8	64.6	64.1	63.1	58.2	58.4	59.3	64.6	65.1	59.6	**60.7**	2.1%	-0.3%	0.2%
Kazakhstan	253.8	264.5	268.9	270.8	255.3	254.5	268.3	294.2	286.5	273.8	**272.1**	-0.4%	0.7%	0.7%
Russian Federation	2067.6	2076.4	2050.5	2043.6	2015.7	2046.1	2043.8	2127.5	2130.9	2010.6	**2172.1**	8.3%	0.5%	5.6%
Turkmenistan	122.1	131.5	133.2	133.8	146.4	143.6	142.4	152.1	160.4	154.2	**180.2**	17.2%	4.0%	0.5%
Uzbekistan	141.3	138.0	139.5	140.4	134.3	130.2	132.9	139.1	139.5	137.3	**142.9**	4.4%	0.1%	0.4%
Other CIS	26.3	28.6	27.8	30.4	31.7	32.2	33.7	38.4	36.8	35.5	**38.5**	8.8%	3.9%	0.1%
Total CIS	2713.9	2743.9	2724.9	2723.4	2685.0	2707.5	2721.7	2859.1	2863.8	2714.2	**2912.2**	7.6%	0.7%	7.5%
Iran	723.8	722.8	731.4	755.5	749.9	802.5	828.6	852.5	842.4	856.9	**892.7**	4.5%	2.1%	2.3%
Iraq	184.6	207.6	226.4	227.1	242.1	273.6	282.3	312.2	304.6	276.9	**289.7**	4.9%	4.6%	0.7%
Israel	71.3	76.7	69.5	66.9	69.6	68.7	69.4	69.4	71.3	65.1	**65.5**	0.9%	-0.8%	0.2%
Kuwait	110.2	114.8	120.9	122.4	124.7	125.3	124.7	127.2	128.7	119.2	**126.8**	6.7%	1.4%	0.3%
Oman	69.8	77.2	88.2	87.9	91.6	93.8	98.0	101.2	101.1	97.6	**107.8**	10.8%	4.4%	0.3%
Qatar	95.2	111.9	125.1	134.5	147.9	147.8	140.0	143.0	149.4	131.3	**139.2**	6.3%	3.9%	0.4%
Saudi Arabia	591.3	620.7	637.2	678.0	698.4	729.8	711.4	711.1	685.1	670.4	**679.4**	1.6%	1.4%	1.7%
United Arab Emirates	251.8	263.5	280.7	277.1	301.3	311.2	312.0	306.1	305.2	280.6	**293.2**	4.8%	1.5%	0.8%
Other Middle East	200.3	180.9	174.0	169.8	149.0	141.7	150.7	144.3	146.9	138.3	**143.1**	3.8%	-3.3%	0.4%
Total Middle East	2298.2	2376.2	2453.5	2519.0	2574.5	2694.3	2717.2	2766.9	2734.5	2636.1	**2737.5**	4.1%	1.8%	7.0%
Algeria	178.8	190.2	206.7	219.1	225.7	229.0	232.9	242.6	244.2	231.9	**245.2**	6.0%	3.2%	0.6%
Egypt	236.7	245.2	249.4	249.8	252.7	266.8	270.8	269.0	274.6	251.1	**267.1**	6.7%	1.2%	0.7%
Morocco	58.2	59.9	60.5	61.8	62.1	62.4	65.6	67.4	72.9	67.2	**74.0**	10.5%	2.4%	0.2%
South Africa	501.3	497.8	499.1	504.0	491.9	510.7	506.8	488.2	510.3	472.6	**472.9**	0.4%	-0.6%	1.2%
Eastern Africa	95.7	95.6	108.2	121.8	126.7	125.0	134.1	140.8	139.6	127.0	**133.8**	5.6%	3.4%	0.3%
Middle Africa	104.6	106.1	102.1	108.5	112.0	110.8	105.0	103.3	103.4	97.2	**96.9**	-0.1%	-0.8%	0.2%
Western Africa	188.4	189.8	184.0	182.9	196.5	197.2	207.6	226.3	234.0	231.8	**240.5**	4.0%	2.5%	0.6%
Other Northern Africa	93.9	152.7	139.8	122.2	116.3	113.7	133.4	143.1	148.5	102.4	**160.6**	57.2%	5.5%	0.4%
Other Southern Africa	11.0	12.5	12.7	14.0	14.1	13.9	14.9	14.9	14.9	13.7	**14.2**	4.2%	2.6%	◆
Total Africa	1468.7	1549.8	1562.6	1584.2	1598.1	1629.6	1671.3	1695.4	1742.6	1594.8	**1705.1**	7.2%	1.5%	4.4%
Australia	453.7	446.5	447.7	455.3	466.3	463.7	463.5	461.5	471.3	441.7	**433.4**	-1.6%	-0.5%	1.1%
Bangladesh	64.7	69.0	72.0	74.9	88.7	90.6	94.8	100.4	110.6	108.5	**112.8**	4.3%	5.7%	0.3%
China	10083.2	10273.7	10569.4	10645.6	10547.9	10531.6	10767.0	11056.4	11311.1	11461.2	**12039.8**	5.3%	1.8%	30.9%
China Hong Kong SAR	92.6	89.3	92.2	90.4	91.3	93.4	99.5	100.8	95.2	68.7	**65.2**	-4.9%	-3.4%	0.2%
India	1900.8	2044.2	2126.6	2294.9	2355.2	2456.7	2529.3	2673.0	2702.3	2494.3	**2797.2**	12.5%	3.9%	7.2%
Indonesia	596.3	623.0	591.3	598.8	612.0	616.6	645.2	703.4	756.1	694.3	**713.1**	3.0%	1.8%	1.8%
Japan	1237.3	1324.5	1314.1	1280.4	1239.9	1220.2	1214.1	1192.4	1151.4	1058.3	**1081.7**	2.5%	-1.3%	2.8%
Malaysia	230.1	248.8	260.7	271.8	275.7	284.4	270.9	279.0	284.2	269.5	**266.7**	-0.7%	1.5%	0.7%
New Zealand	36.5	38.1	37.5	37.6	38.3	37.2	39.3	38.9	40.0	34.8	**33.9**	-2.1%	-0.7%	0.1%
Pakistan	168.4	168.7	171.3	177.6	186.1	203.2	215.0	224.7	234.9	235.4	**258.4**	10.0%	4.4%	0.7%
Philippines	88.3	91.9	100.7	106.8	116.7	127.3	140.0	145.8	153.5	139.9	**149.5**	7.1%	5.4%	0.4%
South Korea	640.6	639.8	647.4	642.6	650.6	662.0	670.4	686.2	662.7	614.2	**628.7**	2.6%	-0.2%	1.6%
Taiwan	281.5	274.9	276.6	282.5	282.0	286.3	292.2	290.2	284.7	270.4	**285.3**	5.8%	0.1%	0.7%
Thailand	278.0	297.5	298.2	307.0	314.3	322.9	322.4	328.0	323.3	303.6	**301.8**	-0.3%	0.8%	0.8%
Vietnam	174.4	172.0	179.7	198.6	233.6	249.4	256.8	305.2	359.7	343.0	**339.8**	-0.7%	6.9%	0.9%
Other Asia Pacific	337.2	343.4	333.1	349.0	372.1	406.5	453.6	460.8	476.5	466.8	**471.5**	1.3%	3.4%	1.2%
Total Asia Pacific	16663.6	17145.1	17518.5	17813.6	17870.6	18052.0	18474.0	19046.8	19417.6	19004.7	**19978.7**	5.4%	1.8%	51.3%
Total World	**36303.0**	**36747.3**	**37341.6**	**37547.0**	**37516.8**	**37727.1**	**38194.6**	**39104.0**	**39152.8**	**36963.7**	**38976.6**	**5.7%**	**0.7%**	**100.0%**
of which: OECD	13579.4	13407.6	13523.7	13344.7	13267.8	13154.3	13172.1	13334.5	13001.2	11613.6	**12174.0**	5.1%	-1.1%	31.2%
Non-OECD	22723.6	23339.7	23817.9	24202.4	24249.0	24572.8	25022.5	25769.5	26151.6	25350.1	**26802.6**	6.0%	1.7%	68.8%
European Union	3409.5	3321.2	3243.7	3081.6	3145.3	3176.2	3199.2	3171.5	3033.4	2659.5	**2825.5**	6.5%	-1.9%	7.2%

Source: statistics are taken from national statistical agencies, international organizations, and other proprietary sources.

◆Less than 0.05%.

Notes: The emissions above are the sum of carbon dioxide emissions from energy, carbon dioxide emissions from flaring, methane emissions in carbon dioxide equivalent and carbon dioxide emissions from industrial processes.

Growth rates are adjusted for leap years.

Oil

Oil: Production in thousands of barrels per day*

												Growth rate per annum		Share
Thousand barrels daily	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	**2021**	2021	2011-21	2021
Canada	3515	3740	4000	4271	4388	4464	4813	5244	5372	5130	**5429**	5.8%	4.4%	6.0%
Mexico	2940	2911	2882	2792	2593	2461	2227	2072	1921	1912	**1928**	0.8%	-4.1%	2.1%
US	7890	8931	10103	11807	12783	12354	13140	15310	17114	16458	**16585**	0.8%	7.7%	18.5%
Total North America	14345	15583	16986	18869	19765	19278	20180	22625	24407	23500	**23942**	1.9%	5.3%	26.6%
Argentina	667	657	644	638	646	610	590	591	620	601	**627**	4.4%	-0.6%	0.7%
Brazil	2179	2145	2110	2341	2525	2607	2731	2691	2890	3030	**2987**	-1.4%	3.2%	3.3%
Colombia	915	944	1010	990	1006	886	854	865	886	781	**738**	-5.5%	-2.1%	0.8%
Ecuador	501	505	527	557	543	548	531	517	531	479	**473**	-1.4%	-0.6%	0.5%
Peru	159	157	171	175	153	141	136	139	144	131	**128**	-2.8%	-2.1%	0.1%
Trinidad & Tobago	136	117	116	114	109	97	99	87	82	76	**77**	0.5%	-5.6%	0.1%
Venezuela	2755	2704	2680	2692	2864	2566	2220	1631	1022	640	**654**	2.1%	-13.4%	0.7%
Other S. & Cent. America	144	147	152	155	146	135	133	128	122	186	**225**	20.9%	4.5%	0.2%
Total S. & Cent. America	7456	7375	7411	7662	7991	7589	7295	6649	6297	5925	**5909**	-0.3%	-2.3%	6.6%
Denmark	225	204	178	167	158	142	138	116	103	72	**65**	-10.2%	-11.7%	0.1%
Italy	110	112	114	120	113	78	86	97	89	112	**100**	-10.0%	-0.9%	0.1%
Norway	2040	1917	1838	1886	1946	1997	1971	1851	1762	2003	**2025**	1.1%	-0.1%	2.3%
Romania	89	83	86	84	83	79	76	75	75	72	**70**	-3.6%	-2.4%	0.1%
United Kingdom	1114	947	865	854	964	1015	1005	1092	1118	1049	**874**	-16.6%	-2.4%	1.0%
Other Europe	336	336	344	339	331	313	303	308	302	290	**286**	-1.3%	-1.6%	0.3%
Total Europe	3913	3600	3426	3450	3596	3623	3579	3538	3449	3597	**3420**	-4.9%	-1.3%	3.8%
Azerbaijan	932	882	888	861	851	838	793	796	775	714	**722**	1.2%	-2.5%	0.8%
Kazakhstan	1684	1664	1737	1710	1695	1655	1838	1904	1919	1806	**1811**	0.3%	0.7%	2.0%
Russian Federation	10533	10656	10807	10927	11087	11342	11374	11562	11679	10667	**10944**	2.6%	0.4%	12.2%
Turkmenistan	234	244	256	263	271	270	269	259	254	219	**252**	15.3%	0.8%	0.3%
Uzbekistan	80	72	69	63	60	57	61	64	67	61	**60**	-2.2%	-2.8%	0.1%
Other CIS	36	35	35	35	36	36	37	38	39	39	**40**	1.0%	1.0%	♦
Total CIS	13500	13553	13791	13859	13998	14198	14371	14622	14733	13506	**13829**	2.4%	0.2%	15.4%
Iran	4452	3810	3609	3714	3853	4578	4854	4608	3399	3084	**3620**	17.4%	-2.0%	4.0%
Iraq	2773	3079	3099	3239	3986	4423	4538	4632	4779	4114	**4102**	-0.3%	4.0%	4.6%
Kuwait	2918	3173	3134	3106	3069	3150	3009	3050	2976	2695	**2741**	1.7%	-0.6%	3.0%
Oman	885	918	942	943	981	1004	971	978	971	951	**971**	2.2%	0.9%	1.1%
Qatar	1824	1868	1887	1881	1805	1790	1756	1793	1727	1714	**1746**	1.9%	-0.4%	1.9%
Saudi Arabia	11079	11622	11393	11519	11998	12406	11892	12261	11832	11039	**10954**	-0.8%	-0.1%	12.2%
Syria	353	171	59	33	27	25	25	24	34	43	**96**	123.2%	-12.2%	0.1%
United Arab Emirates	3300	3425	3566	3603	3898	4038	3910	3912	3999	3693	**3668**	-0.7%	1.1%	4.1%
Yemen	220	178	197	153	63	43	71	94	95	88	**67**	-23.7%	-11.2%	0.1%
Other Middle East	201	184	208	214	213	214	208	207	214	188	**191**	1.1%	-0.6%	0.2%
Total Middle East	28007	28426	28096	28404	29893	31670	31233	31559	30026	27609	**28156**	2.0%	0.1%	31.3%
Algeria	1642	1537	1485	1589	1558	1577	1540	1511	1487	1330	**1353**	1.7%	-1.9%	1.5%
Angola	1670	1734	1738	1701	1796	1745	1671	1519	1420	1318	**1164**	-11.6%	-3.5%	1.3%
Chad	114	101	91	89	111	117	98	116	127	126	**116**	-7.7%	0.2%	0.1%
Republic of Congo	301	280	243	253	234	232	270	330	336	307	**274**	-10.7%	-0.9%	0.3%
Egypt	714	715	710	714	726	691	660	674	653	632	**608**	-3.8%	-1.6%	0.7%
Equatorial Guinea	301	320	282	284	260	223	195	176	160	158	**140**	-11.7%	-7.4%	0.2%
Gabon	236	221	213	211	214	221	210	193	218	207	**181**	-12.7%	-2.6%	0.2%
Libya	516	1539	1048	518	437	412	929	1165	1228	425	**1269**	198.4%	9.4%	1.4%
Nigeria	2459	2409	2276	2273	2199	1898	1968	2005	2101	1828	**1626**	-11.1%	-4.1%	1.8%
South Sudan	–	31	100	155	148	137	147	144	172	165	**153**	-7.3%	–	0.2%
Sudan	291	103	118	120	109	84	70	74	72	63	**64**	1.1%	-14.0%	0.1%
Tunisia	73	73	68	63	57	54	46	44	41	37	**45**	21.3%	-4.6%	0.1%
Other Africa	200	208	242	247	276	270	317	315	348	331	**293**	-11.5%	3.9%	0.3%
Total Africa	8516	9271	8613	8218	8123	7661	8123	8269	8362	6928	**7286**	5.2%	-1.5%	8.1%
Australia	479	472	401	420	378	353	322	342	453	453	**435**	-3.9%	-1.0%	0.5%
Brunei	165	159	135	126	127	121	113	112	121	110	**107**	-3.2%	-4.3%	0.1%
China	4074	4155	4216	4246	4309	3999	3846	3802	3848	3901	**3994**	2.4%	-0.2%	4.4%
India	937	926	926	905	893	874	885	869	826	771	**746**	-3.2%	-2.3%	0.8%
Indonesia	952	917	871	847	838	873	837	808	781	742	**692**	-6.8%	-3.1%	0.8%
Malaysia	659	663	627	649	696	726	718	713	672	616	**573**	-7.0%	-1.4%	0.6%
Thailand	429	471	466	464	481	489	486	475	475	421	**398**	-5.3%	-0.7%	0.4%
Vietnam	316	347	346	325	352	317	284	257	236	207	**192**	-7.2%	-4.8%	0.2%
Other Asia Pacific	302	291	274	296	298	281	273	234	230	208	**199**	-4.7%	-4.1%	0.2%
Total Asia Pacific	8314	8401	8263	8279	8372	8033	7765	7610	7642	7428	**7335**	-1.3%	-1.2%	8.2%
Total World	**84050**	**86208**	**86584**	**88741**	**91737**	**92053**	**92546**	**94874**	**94916**	**88494**	**89877**	1.6%	**0.7%**	**100.0%**
of which: OECD	19517	20460	21673	23594	24612	24011	24811	27236	29056	28198	**28405**	0.7%	3.8%	31.6%
Non-OECD	64534	65749	64911	65147	67126	68041	67735	67638	65860	60296	**61471**	1.9%	-0.5%	68.4%
OPEC	34402	35851	34767	34703	36364	37467	37206	36995	34957	30839	**31745**	2.9%	-0.8%	35.3%
Non-OPEC	49648	50358	51818	54038	55373	54586	55340	57879	59959	57655	**58131**	0.8%	1.6%	64.7%
European Union	600	572	560	552	535	471	465	448	415	393	**366**	-7.0%	-4.8%	0.4%

Source: includes data from FGE Iran Service.

*Includes crude oil, shale oil, oil sands, condensates (lease condensate or gas condensates that require further refining) and NGLs (natural gas liquids – ethane, LPG and naphtha separated from the production of natural gas).
Excludes liquid fuels from other sources such as biofuels and synthetic derivatives of coal and natural gas. This also excludes liquid fuel adjustment factors such as refinery processing gain.
Excludes oil shales/kerogen extracted in solid form.
♦Less than 0.05%.
Note: Annual changes and shares of total are calculated using thousand barrels daily figures.
Growth rates are adjusted for leap years.

Oil: Production in million tonnes*

Million tonnes	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Growth rate per annum		Share
												2021	2011-21	2021
Canada	170.1	182.9	195.4	209.8	216.1	218.8	236.6	257.7	263.5	252.0	**267.1**	6.3%	4.6%	6.3%
Mexico	144.5	143.9	142.1	137.3	127.7	121.5	109.6	102.4	95.0	95.1	**96.5**	1.7%	-4.0%	2.3%
US	346.4	395.2	448.7	524.7	567.1	542.6	574.1	669.1	749.9	711.6	**711.1**	0.2%	7.5%	16.8%
Total North America	661.1	722.0	786.2	871.8	910.9	883.0	920.3	1029.2	1108.4	1058.7	**1074.7**	1.8%	5.0%	25.5%
Argentina	31.2	30.8	30.2	29.8	30.0	28.6	27.2	27.5	28.8	27.7	**29.1**	5.4%	-0.7%	0.7%
Brazil	114.0	112.4	110.2	122.5	132.2	136.7	142.6	140.6	151.2	159.3	**156.8**	-1.3%	3.2%	3.7%
Colombia	48.2	49.9	53.2	52.2	53.0	46.8	45.0	45.6	46.7	41.3	**38.9**	-5.5%	-2.1%	0.9%
Ecuador	26.8	27.1	28.2	29.8	29.1	29.5	28.5	27.7	28.5	25.8	**25.3**	-1.4%	-0.6%	0.6%
Peru	7.0	6.9	7.3	7.5	6.5	5.8	5.7	5.9	6.1	5.5	**5.3**	-2.7%	-2.7%	0.1%
Trinidad & Tobago	5.9	5.2	5.1	5.1	4.8	4.3	4.4	3.9	3.7	3.4	**3.5**	2.0%	-5.1%	0.1%
Venezuela	141.5	139.3	137.8	138.5	147.6	132.6	114.1	83.8	52.1	32.7	**33.4**	2.4%	-13.4%	0.8%
Other S. & Cent. America	7.3	7.4	7.6	7.8	7.3	6.8	6.7	6.4	6.2	9.4	**11.3**	20.5%	4.5%	0.3%
Total S. & Cent. America	381.8	379.0	379.6	393.1	410.6	391.2	374.2	341.5	323.1	305.0	**303.5**	-0.2%	-2.3%	7.2%
Denmark	10.9	10.0	8.7	8.1	7.7	6.9	6.7	5.6	5.0	3.5	**3.2**	-10.2%	-11.7%	0.1%
Italy	5.3	5.4	5.5	5.8	5.5	3.8	4.1	4.7	4.3	5.4	**4.8**	-10.0%	-0.9%	0.1%
Norway	93.4	87.0	82.9	85.0	87.6	90.3	88.9	83.3	79.8	92.0	**93.8**	2.2%	♦	2.2%
Romania	4.2	4.0	4.1	4.1	4.0	3.8	3.6	3.6	3.6	3.5	**3.3**	-3.6%	-2.4%	0.1%
United Kingdom	52.0	44.6	40.6	39.9	45.3	47.4	46.6	50.9	51.8	49.0	**40.9**	-16.3%	-2.4%	1.0%
Other Europe	16.7	16.7	17.1	16.9	16.5	15.6	15.0	15.2	15.0	14.4	**14.2**	-1.4%	-1.6%	0.3%
Total Europe	182.5	167.7	159.0	159.8	166.6	167.9	165.0	163.3	159.5	167.8	**160.2**	-4.3%	-1.3%	3.8%
Azerbaijan	46.1	43.7	43.8	42.5	42.0	41.4	39.1	39.2	38.0	35.0	**35.1**	0.6%	-2.7%	0.8%
Kazakhstan	80.1	79.3	82.3	81.1	80.2	78.6	87.0	90.5	91.0	86.0	**86.0**	0.3%	0.7%	2.0%
Russian Federation	519.5	526.7	532.2	537.4	544.6	558.5	558.5	567.9	573.4	524.4	**536.4**	2.6%	0.3%	12.7%
Turkmenistan	11.5	12.0	12.5	12.9	13.2	13.2	13.1	12.5	12.2	10.4	**12.0**	15.5%	0.4%	0.3%
Uzbekistan	3.7	3.3	3.2	2.9	2.7	2.6	2.8	2.9	3.0	2.8	**2.7**	-2.0%	-3.1%	0.1%
Other CIS	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	2.0	**2.0**	1.0%	1.0%	♦
Total CIS	662.7	666.8	675.8	678.5	684.5	696.1	702.3	714.9	719.6	660.5	**674.3**	2.4%	0.2%	16.0%
Iran	212.5	180.5	169.7	174.0	180.2	216.1	231.9	219.2	158.3	143.2	**167.7**	17.4%	-2.3%	4.0%
Iraq	135.8	151.3	151.9	158.8	195.6	217.6	222.4	227.0	234.2	202.0	**200.8**	-0.3%	4.0%	4.8%
Kuwait	140.9	154.0	151.4	150.2	148.2	152.7	145.0	146.8	143.4	130.3	**131.1**	0.9%	-0.7%	3.1%
Oman	43.2	45.0	46.1	46.2	48.0	49.3	47.6	47.8	47.3	46.1	**46.8**	1.8%	0.8%	1.1%
Qatar	77.7	79.6	79.7	79.4	75.7	75.1	73.6	74.8	71.9	72.0	**73.3**	2.1%	-0.6%	1.7%
Saudi Arabia	522.7	549.2	538.4	543.8	568.0	586.7	559.3	576.8	556.6	519.6	**515.0**	-0.6%	-0.1%	12.2%
Syria	16.9	8.1	2.7	1.5	1.2	1.1	1.1	1.1	1.5	2.0	**4.6**	134.8%	-12.2%	0.1%
United Arab Emirates	150.5	156.2	162.8	163.4	176.1	182.4	176.2	176.7	180.5	166.6	**164.4**	-1.1%	0.9%	3.9%
Yemen	10.2	8.1	9.0	6.9	2.6	1.6	3.0	4.1	4.1	3.8	**2.8**	-26.5%	-12.2%	0.1%
Other Middle East	9.9	9.0	10.3	10.5	10.5	10.6	10.2	10.2	10.4	9.2	**9.3**	1.7%	-0.6%	0.2%
Total Middle East	1320.4	1341.1	1321.9	1334.8	1406.2	1493.3	1470.3	1484.5	1408.3	1294.9	**1315.8**	1.9%	♦	31.2%
Algeria	71.7	67.2	64.8	68.8	67.2	68.4	66.6	65.3	64.3	57.5	**58.2**	1.4%	-2.1%	1.4%
Angola	82.0	85.3	85.2	83.3	88.2	85.8	81.6	74.1	69.1	64.2	**56.6**	-11.6%	-3.6%	1.3%
Chad	6.0	5.3	4.8	4.7	5.8	6.1	5.2	6.1	6.7	6.6	**6.1**	-7.7%	0.2%	0.1%
Republic of Congo	15.3	14.2	12.3	12.9	11.9	11.9	13.8	16.9	17.2	15.8	**14.0**	-10.8%	-0.9%	0.3%
Egypt	34.6	34.7	34.4	35.1	35.4	33.8	32.2	32.8	31.8	31.1	**29.6**	-4.5%	-1.5%	0.7%
Equatorial Guinea	14.2	15.2	13.2	13.3	12.1	10.3	9.0	8.1	7.4	7.4	**6.4**	-12.6%	-7.6%	0.2%
Gabon	11.8	11.1	10.7	10.5	10.7	11.0	10.5	9.7	10.9	10.4	**9.0**	-12.7%	-2.6%	0.2%
Libya	24.3	72.6	49.4	24.4	20.5	19.3	43.8	54.9	57.8	20.0	**59.6**	198.9%	9.4%	1.4%
Nigeria	118.3	116.4	109.4	109.2	105.7	91.3	94.4	96.3	101.1	88.4	**77.9**	-11.6%	-4.1%	1.8%
South Sudan	–	1.5	4.9	7.7	7.3	6.8	7.3	7.1	8.4	8.1	**7.5**	-7.3%	–	0.2%
Sudan	14.3	5.1	5.8	5.9	5.4	4.2	3.4	3.7	3.6	3.1	**3.2**	1.1%	-14.0%	0.1%
Tunisia	3.4	3.4	3.1	2.9	2.6	2.5	2.1	2.0	1.9	1.7	**2.1**	22.4%	-4.6%	0.1%
Other Africa	9.9	10.3	12.0	12.2	13.7	13.5	15.7	15.5	17.1	16.3	**14.4**	-11.7%	3.8%	0.3%
Total Africa	405.9	442.3	409.9	390.8	386.4	364.9	385.5	392.6	397.3	330.7	**344.7**	4.5%	-1.6%	8.2%
Australia	21.4	21.2	17.6	18.6	16.8	15.4	13.9	14.6	19.1	19.1	**18.1**	-4.6%	-1.6%	0.4%
Brunei	8.1	7.8	6.6	6.2	6.2	5.9	5.5	5.4	5.9	5.4	**5.2**	-3.0%	-4.3%	0.1%
China	202.9	207.5	210.0	211.4	214.6	199.7	191.5	189.3	191.6	194.8	**198.9**	2.4%	-0.2%	4.7%
India	42.9	42.5	42.5	41.6	41.2	40.2	40.4	39.5	37.5	35.1	**34.0**	-3.0%	-2.3%	0.8%
Indonesia	46.3	44.6	42.4	41.0	40.6	42.6	40.9	39.5	38.2	36.4	**33.8**	-6.9%	-3.1%	0.8%
Malaysia	29.7	30.1	28.7	29.8	32.2	33.3	32.9	32.5	30.6	28.1	**25.9**	-7.3%	-1.3%	0.6%
Thailand	15.8	17.3	17.1	16.9	17.6	18.1	17.6	17.0	16.9	15.1	**13.9**	-7.6%	-1.2%	0.3%
Vietnam	15.4	17.0	16.9	15.9	17.2	15.5	13.9	12.4	11.4	10.0	**9.3**	-6.5%	-4.9%	0.2%
Other Asia Pacific	13.2	12.8	12.1	13.3	13.4	12.6	12.2	10.5	10.3	9.4	**9.0**	-4.3%	-3.8%	0.2%
Total Asia Pacific	395.7	400.7	393.8	394.6	399.6	383.3	368.7	360.8	361.5	353.3	**348.2**	-1.2%	-1.3%	8.2%
Total World	**4010.0**	**4119.6**	**4126.2**	**4223.3**	**4364.9**	**4379.6**	**4386.4**	**4486.8**	**4477.6**	**4170.9**	**4221.4**	**1.5%**	**0.5%**	**100.0%**
of which: OECD	906.4	953.8	1008.6	1095.5	1140.7	1106.6	1138.1	1246.2	1326.8	1280.4	**1285.6**	0.7%	3.6%	30.5%
Non-OECD	3103.6	3165.9	3117.6	3127.8	3224.2	3273.0	3248.3	3240.7	3150.8	2890.6	**2935.7**	1.8%	-0.6%	69.5%
OPEC	1641.6	1712.5	1656.9	1651.1	1732.0	1786.2	1768.6	1755.8	1652.9	1458.2	**1494.2**	2.8%	-0.9%	35.4%
Non-OPEC	2368.4	2407.2	2469.2	2572.2	2632.9	2593.4	2617.7	2731.0	2824.7	2712.8	**2727.1**	0.8%	1.4%	64.6%
European Union	29.2	28.0	27.4	27.0	26.1	23.0	22.7	21.9	20.2	19.3	**17.8**	-7.0%	-4.8%	0.4%

Source: includes data from FGE Iran Service.

*Includes crude oil, shale oil, oil sands, condensates (lease condensate or gas condensates that require further refining) and NGLs (natural gas liquids – ethane, LPG and naphtha separated from the production of natural gas).
Excludes liquid fuels from other sources such as biofuels and synthetic derivatives of coal and natural gas. This also excludes liquid fuel adjustment factors such as refinery processing gain.
Excludes oil shales/kerogen extracted in solid form.
♦Less than 0.05%.
Note: Annual changes and shares of total are calculated using million tonnes figures.
Growth rates are adjusted for leap years.

Oil: Crude oil and condensate production in thousands of barrels per day*

Thousand barrels daily	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Growth rate per annum 2021	Growth rate per annum 2011-21	Share 2021
Canada	3021	3250	3486	3758	3863	3868	4216	4596	4690	4470	**4748**	6.2%	4.6%	6.1%
Mexico	2553	2548	2522	2429	2267	2154	1948	1833	1701	1705	**1756**	3.0%	-3.7%	2.3%
US	5674	6523	7498	8792	9441	8844	9357	10941	12289	11283	**11188**	-0.8%	7.0%	14.4%
Total North America	11248	12321	13506	14978	15571	14866	15521	17370	18681	17458	**17693**	1.3%	4.6%	22.7%
Argentina	553	549	540	532	532	511	480	489	509	481	**513**	6.8%	-0.8%	0.7%
Brazil	2105	2061	2024	2255	2437	2510	2622	2587	2788	2940	**2905**	-1.2%	3.3%	3.7%
Colombia	915	944	1010	990	1006	886	854	865	886	781	**738**	-5.5%	-2.1%	0.9%
Ecuador	500	504	526	557	543	548	531	517	531	479	**473**	-1.4%	-0.5%	0.6%
Peru	117	112	118	121	104	91	88	92	95	84	**82**	-1.7%	-3.4%	0.1%
Trinidad & Tobago	92	82	81	81	79	71	72	63	59	57	**60**	5.7%	-4.2%	0.1%
Venezuela	2623	2580	2564	2578	2747	2461	2116	1542	942	589	**605**	2.7%	-13.6%	0.8%
Other S. & Cent. America	126	131	135	140	133	122	118	114	109	173	**212**	22.2%	5.4%	0.3%
Total S. & Cent. America	7031	6963	6998	7255	7580	7200	6881	6270	5919	5583	**5588**	0.1%	-2.3%	7.2%
Denmark	225	204	178	167	158	142	138	116	103	72	**65**	-10.2%	-11.7%	0.1%
Italy	110	112	114	120	113	78	86	97	89	112	**100**	-10.0%	-0.9%	0.1%
Norway	1758	1612	1532	1562	1608	1647	1620	1516	1463	1715	**1776**	3.6%	0.1%	2.3%
Romania	84	79	83	82	80	76	73	72	71	68	**66**	-3.8%	-2.4%	0.1%
United Kingdom	1028	885	810	791	903	933	913	1002	1019	961	**807**	-16.0%	-2.4%	1.0%
Other Europe	316	317	327	324	317	297	284	289	286	275	**270**	-1.5%	-1.5%	0.3%
Total Europe	3521	3209	3045	3045	3180	3173	3114	3092	3030	3202	**3084**	-3.7%	-1.3%	4.0%
Azerbaijan	919	872	877	849	840	826	781	783	762	702	**707**	0.7%	-2.6%	0.9%
Kazakhstan	1684	1662	1720	1701	1672	1637	1813	1900	1903	1796	**1801**	0.3%	0.7%	2.3%
Russian Federation	10287	10395	10528	10479	10617	10863	10898	11083	11186	10192	**10455**	2.6%	0.2%	13.4%
Turkmenistan	224	231	239	246	254	250	248	236	228	189	**220**	16.2%	-0.2%	0.3%
Uzbekistan	80	72	69	63	60	57	61	64	67	61	**60**	-2.2%	-2.8%	0.1%
Other CIS	36	35	35	35	36	36	37	38	39	39	**40**	1.0%	1.0%	0.1%
Total CIS	13229	13267	13468	13373	13478	13670	13839	14104	14185	12980	**13283**	2.3%	♦	17.1%
Iran	4048	3398	3192	3273	3392	4090	4490	4240	3020	2730	**3170**	16.1%	-2.4%	4.1%
Iraq	2728	3037	3058	3198	3945	4375	4473	4568	4712	4049	**4032**	-0.4%	4.0%	5.2%
Kuwait	2645	2890	2847	2830	2782	2860	2704	2737	2678	2438	**2415**	-0.9%	-0.9%	3.1%
Oman	885	918	942	943	981	1004	971	978	971	951	**971**	2.2%	0.9%	1.2%
Qatar	1399	1431	1416	1414	1335	1317	1305	1322	1257	1282	**1310**	2.2%	-0.7%	1.7%
Saudi Arabia	9566	9987	9875	9941	10420	10688	10175	10533	10145	9430	**9394**	-0.4%	-0.2%	12.1%
Syria	319	146	45	23	19	17	17	16	25	33	**86**	160.5%	-12.3%	0.1%
United Arab Emirates	2853	2946	3084	3063	3284	3384	3279	3308	3360	3087	**3031**	-1.8%	0.6%	3.9%
Yemen	197	154	173	128	38	16	44	67	67	60	**40**	-34.6%	-14.9%	0.1%
Other Middle East	191	173	199	204	203	204	198	196	196	170	**176**	3.2%	-0.8%	0.2%
Total Middle East	24831	25080	24830	25018	26399	27956	27657	27964	26429	24231	**24625**	1.6%	-0.1%	31.6%
Algeria	1416	1320	1275	1329	1290	1316	1287	1259	1239	1097	**1104**	0.7%	-2.5%	1.4%
Angola	1656	1714	1716	1672	1780	1722	1632	1479	1373	1271	**1124**	-11.6%	-3.8%	1.4%
Chad	114	101	91	89	111	117	98	116	127	126	**116**	-7.7%	0.2%	0.1%
Republic of Congo	292	268	234	245	227	225	263	323	329	300	**267**	-11.0%	-0.9%	0.3%
Egypt	649	649	643	667	662	631	603	617	597	587	**561**	-4.5%	-1.4%	0.7%
Equatorial Guinea	280	299	261	266	242	204	174	157	144	143	**124**	-13.2%	-7.8%	0.2%
Gabon	236	221	213	211	214	221	210	193	218	207	**181**	-12.7%	-2.6%	0.2%
Libya	508	1499	1025	510	422	397	909	1144	1201	410	**1230**	199.9%	9.3%	1.6%
Nigeria	2373	2330	2193	2188	2119	1822	1890	1922	2014	1765	**1545**	-12.5%	-4.2%	2.0%
South Sudan	–	31	100	155	148	137	147	144	172	165	**153**	-7.3%	–	0.2%
Sudan	291	103	118	120	109	84	70	74	72	63	**64**	1.1%	-14.0%	0.1%
Tunisia	70	69	62	58	52	49	42	41	38	34	**43**	24.9%	-4.7%	0.1%
Other Africa	200	208	242	247	276	270	317	315	347	328	**286**	-12.8%	3.7%	0.4%
Total Africa	8085	8813	8173	7756	7651	7193	7642	7784	7870	6498	**6799**	4.6%	-1.7%	8.7%
Australia	411	405	335	353	322	290	263	284	361	351	**335**	-4.7%	-2.0%	0.4%
Brunei	153	146	122	114	115	109	101	100	110	100	**98**	-2.3%	-4.3%	0.1%
China	4074	4155	4216	4246	4309	3999	3846	3802	3848	3901	**3994**	2.4%	-0.2%	5.1%
India	793	786	789	778	771	744	744	719	677	636	**619**	-2.7%	-2.5%	0.8%
Indonesia	902	859	825	789	786	829	801	772	745	708	**659**	-7.0%	-3.1%	0.8%
Malaysia	583	598	588	610	662	667	660	653	610	556	**511**	-8.0%	-1.3%	0.7%
Thailand	224	239	241	233	248	258	240	228	228	202	**177**	-12.2%	-2.3%	0.2%
Vietnam	308	339	337	315	342	308	275	243	225	195	**184**	-5.5%	-5.0%	0.2%
Other Asia Pacific	256	246	237	261	265	250	241	208	205	188	**180**	-4.2%	-3.5%	0.2%
Total Asia Pacific	7705	7773	7690	7699	7820	7453	7171	7008	7008	6837	**6757**	-1.2%	-1.3%	8.7%
Total World	**75650**	**77426**	**77710**	**79125**	**81679**	**81512**	**81825**	**83592**	**83122**	**76791**	**77830**	**1.4%**	**0.3%**	**100.0%**
of which: OECD	15958	16738	17744	19230	19945	19090	19631	21481	22825	21667	**21727**	0.3%	3.1%	27.9%
Non-OECD	59692	60688	59966	59896	61734	62422	62194	62112	60296	55124	**56103**	1.8%	-0.6%	72.1%
OPEC	31226	32489	31537	31305	32864	33763	33602	33405	31374	27517	**28223**	2.6%	-1.0%	36.3%
Non-OPEC	44424	44937	46173	47820	48816	47749	48222	50187	51748	49274	**49607**	0.7%	1.1%	63.7%
European Union	581	556	546	540	523	457	451	436	403	384	**356**	-7.2%	-4.8%	0.5%

Source: includes data from FGE Iran Service.

*Includes crude oil, shale/tight oil, oil sands, lease condensate or gas condensates that require further refining. Excludes liquid fuels from other sources such as biomass and synthetic derivatives of coal and natural gas.
♦Less than 0.05%.
n/a not available.
Note: Annual changes and shares of total are calculated using thousand barrels daily figures.

Oil: Natural gas liquids production in thousands of barrels per day*

												Growth rate per annum		Share
Thousand barrels daily	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	**2021**	2021	2011-21	2021
Canada	493	490	514	513	525	595	597	647	682	660	**681**	3.1%	3.3%	5.7%
Mexico	388	363	360	363	326	307	279	238	220	206	**171**	-17.0%	-7.8%	1.4%
US	2216	2408	2606	3015	3342	3509	3783	4369	4824	5175	**5397**	4.3%	9.3%	44.8%
Total North America	3097	3261	3480	3890	4194	4412	4659	5255	5726	6041	**6249**	3.4%	7.3%	51.9%
Argentina	114	107	104	105	114	99	110	102	112	120	**114**	-4.8%	◆	0.9%
Brazil	73	84	86	87	88	97	110	104	102	90	**82**	-9.2%	1.1%	0.7%
Colombia	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Ecuador	1	1	1	–	–	–	–	–	–	–	**–**	–	-100.0%	–
Peru	42	45	54	54	49	50	48	47	49	48	**46**	-4.9%	0.8%	0.4%
Trinidad & Tobago	44	35	34	33	30	25	27	24	23	20	**17**	-14.5%	-9.2%	0.1%
Venezuela	132	124	116	114	117	105	104	88	80	52	**49**	-5.0%	-9.4%	0.4%
Other S. & Cent. America	19	16	17	14	13	12	15	14	13	12	**13**	3.3%	-3.9%	0.1%
Total S. & Cent. America	425	413	412	407	411	389	414	379	378	342	**320**	-6.3%	-2.8%	2.7%
Denmark	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Italy	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Norway	281	306	305	324	338	349	351	335	299	288	**249**	-13.7%	-1.2%	2.1%
Romania	5	4	3	3	3	4	3	3	4	4	**4**	1.1%	-1.7%	◆
United Kingdom	86	62	55	62	60	82	92	90	99	88	**67**	-23.3%	-2.4%	0.6%
Other Europe	20	19	17	15	14	16	19	19	17	15	**16**	2.4%	-2.5%	0.1%
Total Europe	392	390	380	404	416	451	465	446	419	395	**335**	-15.1%	-1.5%	2.8%
Azerbaijan	13	10	11	12	11	11	11	12	13	12	**15**	26.9%	1.6%	0.1%
Kazakhstan	†	2	17	9	23	18	25	4	16	10	**10**	1.8%	58.0%	0.1%
Russian Federation	247	260	278	448	470	479	476	479	493	475	**488**	2.8%	7.1%	4.1%
Turkmenistan	10	14	17	17	17	20	21	23	27	30	**32**	9.6%	11.9%	0.3%
Uzbekistan	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Other CIS	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Total CIS	271	286	323	486	521	528	533	518	548	526	**546**	3.7%	7.3%	4.5%
Iran	404	412	418	441	461	488	364	368	379	354	**450**	27.1%	1.1%	3.7%
Iraq	45	42	41	40	41	48	64	64	68	64	**70**	8.8%	4.5%	0.6%
Kuwait	273	283	287	276	288	290	305	313	299	257	**326**	26.8%	1.8%	2.7%
Oman	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Qatar	426	437	471	466	470	473	450	471	470	432	**436**	1.0%	0.2%	3.6%
Saudi Arabia	1513	1635	1518	1577	1578	1718	1717	1728	1687	1609	**1560**	-3.1%	0.3%	12.9%
Syria	34	25	14	10	8	8	8	8	9	10	**10**	–	-11.5%	0.1%
United Arab Emirates	447	479	482	539	614	654	631	604	639	607	**637**	4.9%	3.6%	5.3%
Yemen	23	24	24	25	26	26	27	28	28	28	**28**	0.3%	1.8%	0.2%
Other Middle East	11	10	10	10	10	10	10	11	19	18	**15**	-18.1%	3.2%	0.1%
Total Middle East	3175	3346	3266	3386	3494	3715	3576	3596	3597	3378	**3531**	4.5%	1.1%	29.3%
Algeria	225	216	210	260	268	261	254	252	247	233	**248**	6.5%	1.0%	2.1%
Angola	14	20	22	30	16	23	39	40	47	47	**40**	-13.6%	11.2%	0.3%
Chad	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Republic of Congo	9	12	9	8	7	7	7	7	7	7	**7**	3.7%	-2.3%	0.1%
Egypt	65	66	67	47	64	60	57	58	56	44	**47**	4.5%	-3.3%	0.4%
Equatorial Guinea	21	20	21	19	17	19	21	19	17	15	**15**	2.3%	-2.9%	0.1%
Gabon	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Libya	8	40	22	8	15	15	20	21	27	15	**40**	159.1%	16.6%	0.3%
Nigeria	86	79	83	86	80	76	78	83	87	63	**80**	28.4%	-0.6%	0.7%
South Sudan	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Sudan	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Tunisia	4	5	6	5	5	5	4	4	3	3	**2**	-19.4%	-4.0%	◆
Other Africa	–	–	–	–	–	–	–	1	1	3	**7**	147.7%	–	0.1%
Total Africa	431	458	440	462	472	467	481	485	492	430	**487**	13.3%	1.2%	4.0%
Australia	68	67	66	67	56	64	59	58	92	102	**100**	-1.2%	4.0%	0.8%
Brunei	13	13	13	12	11	12	13	12	12	10	**8**	-11.7%	-4.1%	0.1%
China	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
India	144	140	136	128	122	130	141	150	150	135	**127**	-5.6%	-1.2%	1.1%
Indonesia	50	58	46	58	52	44	36	36	35	34	**33**	-2.1%	-4.1%	0.3%
Malaysia	76	65	39	39	35	59	58	60	62	60	**62**	2.4%	-2.1%	0.5%
Thailand	205	232	225	231	233	231	247	247	246	219	**221**	1.1%	0.8%	1.8%
Vietnam	8	8	10	10	9	10	9	13	12	12	**8**	-34.3%	◆	0.1%
Other Asia Pacific	46	45	38	36	33	31	32	26	26	21	**19**	-8.9%	-8.6%	0.2%
Total Asia Pacific	609	628	572	580	551	580	594	602	634	591	**578**	-2.1%	-0.5%	4.8%
Total World	**8400**	**8782**	**8874**	**9616**	**10058**	**10541**	**10721**	**11282**	**11794**	**11703**	**12047**	**2.9%**	**3.7%**	**100.0%**
of which: OECD	3558	3722	3929	4364	4667	4922	5180	5756	6230	6531	**6679**	2.3%	6.5%	55.4%
Non-OECD	4842	5061	4945	5252	5391	5619	5541	5526	5564	5172	**5368**	3.8%	1.0%	44.6%
OPEC	3176	3361	3230	3398	3501	3704	3604	3589	3583	3322	**3522**	6.0%	1.0%	29.2%
Non-OPEC	5224	5421	5644	6218	6557	6837	7117	7692	8211	8381	**8525**	1.7%	5.0%	70.8%
European Union	18	17	14	13	13	14	14	12	11	10	**10**	3.9%	-5.9%	0.1%

*Includes ethane, LPG and naphtha separated from the production of natural gas. Excludes condensates.
†Less than 0.05.
◆Less than 0.05%.
Note: Annual changes and shares of total are calculated using thousand barrels daily figures.
Growth rates are adjusted for leap years.

Source: Includes data from FGE Iran Service, ICIS.

Oil: Total liquids consumption in thousands of barrels per day*

Thousand barrels daily	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	**2021**	Growth rate per annum 2021	Growth rate per annum 2011-21	Share 2021
Canada	2445	2484	2480	2479	2499	2508	2487	2566	2558	2251	**2292**	1.8%	-0.6%	2.4%
Mexico	2068	2086	2038	1965	1945	1956	1890	1843	1705	1321	**1358**	2.8%	-4.1%	1.4%
US	18896	18482	18967	19100	19532	19692	19952	20512	20543	18186	**19782**	8.8%	0.5%	20.4%
Total North America	23408	23053	23484	23545	23976	24156	24329	24920	24806	21757	**23432**	7.7%	♦	24.2%
Argentina	629	669	713	709	727	711	711	680	612	541	**624**	15.3%	-0.1%	0.6%
Brazil	2834	2894	3100	3218	3068	2894	2956	2927	3007	2778	**2932**	5.5%	0.3%	3.0%
Chile	371	376	362	353	355	377	364	379	383	349	**365**	4.4%	-0.2%	0.4%
Colombia	275	296	294	310	330	337	332	344	359	294	**370**	26.1%	3.0%	0.4%
Ecuador	226	233	247	260	254	240	237	255	249	203	**249**	22.5%	1.0%	0.3%
Peru	216	219	231	229	245	260	271	278	288	219	**276**	25.6%	2.5%	0.3%
Trinidad & Tobago	42	40	45	41	45	47	44	41	32	28	**25**	-10.4%	-5.0%	♦
Venezuela	721	785	835	746	697	537	493	410	339	277	**289**	4.3%	-8.7%	0.3%
Central America	366	369	373	388	420	435	444	423	454	382	**433**	13.5%	1.7%	0.4%
Other Caribbean	648	626	601	590	613	633	620	632	626	518	**577**	11.3%	-1.1%	0.6%
Other South America	190	192	197	198	204	218	223	231	234	219	**238**	8.4%	2.3%	0.2%
Total S. & Cent. America	6518	6699	7000	7042	6959	6690	6694	6600	6583	5809	**6377**	9.8%	-0.2%	6.6%
Austria	256	256	263	255	256	261	263	267	276	239	**246**	2.7%	-0.4%	0.3%
Belgium	632	611	633	629	647	654	664	704	662	583	**655**	12.3%	0.4%	0.7%
Bulgaria	81	85	80	86	97	98	103	102	106	95	**102**	7.5%	2.4%	0.1%
Croatia	73	66	64	66	68	68	73	71	71	60	**66**	9.7%	-0.9%	0.1%
Cyprus	55	51	46	46	47	51	53	52	52	44	**46**	3.1%	-1.8%	♦
Czech Republic	199	196	188	199	191	179	213	214	218	190	**209**	9.9%	0.5%	0.2%
Denmark	168	158	158	159	161	158	158	159	159	133	**135**	1.3%	-2.2%	0.1%
Estonia	27	32	31	29	29	29	30	30	27	29	**30**	3.6%	0.9%	♦
Finland	207	199	213	207	207	210	208	208	208	187	**188**	0.3%	-0.9%	0.2%
France	1721	1669	1657	1610	1611	1596	1607	1605	1599	1372	**1499**	9.3%	-1.4%	1.5%
Germany	2365	2352	2404	2344	2336	2374	2443	2325	2339	2132	**2119**	-0.6%	-1.1%	2.2%
Greece	352	307	285	284	297	297	301	298	308	251	**254**	1.4%	-3.2%	0.3%
Hungary	142	133	131	147	157	155	168	180	181	168	**179**	6.1%	2.3%	0.2%
Iceland	14	14	15	16	17	19	21	23	20	13	**13**	2.3%	-0.7%	♦
Ireland	149	140	141	140	146	152	153	158	158	134	**136**	1.5%	-0.9%	0.1%
Italy	1495	1401	1289	1220	1293	1284	1304	1331	1277	1064	**1182**	11.0%	-2.3%	1.2%
Latvia	34	33	34	34	36	37	38	34	39	34	**35**	3.2%	0.6%	♦
Lithuania	53	55	53	53	57	61	64	68	68	64	**67**	4.5%	2.4%	0.1%
Luxembourg	61	59	58	57	56	56	59	63	64	52	**54**	3.7%	-1.2%	0.1%
Netherlands	972	926	900	866	837	854	830	858	830	760	**759**	-0.2%	-2.4%	0.8%
North Macedonia	20	19	19	19	20	22	21	21	22	20	**24**	16.0%	1.9%	♦
Norway	225	218	229	218	220	217	223	229	223	213	**208**	-2.1%	-0.8%	0.2%
Poland	591	570	537	538	558	605	662	685	702	664	**713**	7.4%	1.9%	0.7%
Portugal	256	231	241	247	246	248	246	245	253	207	**215**	3.9%	-1.7%	0.2%
Romania	191	191	174	187	191	202	213	219	230	216	**234**	8.5%	2.1%	0.2%
Slovakia	81	74	75	71	77	79	89	90	86	86	**90**	5.0%	1.1%	0.1%
Slovenia	55	54	51	50	49	52	54	56	54	46	**49**	7.0%	-1.2%	0.1%
Spain	1370	1285	1191	1188	1233	1278	1291	1325	1325	1087	**1199**	10.3%	-1.3%	1.2%
Sweden	310	309	307	305	303	319	320	305	325	285	**305**	7.3%	-0.2%	0.3%
Switzerland	234	238	249	224	227	216	222	215	220	184	**185**	0.7%	-2.3%	0.2%
Turkey	673	704	756	774	917	976	1025	993	1003	915	**942**	3.0%	3.4%	1.0%
Ukraine	291	287	275	245	216	229	231	241	242	229	**239**	4.4%	-2.0%	0.2%
United Kingdom	1589	1532	1517	1522	1563	1612	1619	1601	1563	1209	**1271**	5.1%	-2.2%	1.3%
Other Europe	320	299	297	295	305	326	342	338	347	314	**322**	2.7%	0.1%	0.3%
Total Europe	15262	14754	14562	14329	14673	14977	15310	15316	15262	13282	**13973**	5.2%	-0.9%	14.4%
Azerbaijan	89	92	101	99	100	98	99	104	105	91	**95**	4.3%	0.7%	0.1%
Belarus	175	214	161	164	138	147	147	171	175	167	**160**	-4.3%	-0.9%	0.2%
Kazakhstan	270	288	297	304	289	304	313	338	345	302	**327**	8.3%	2.0%	0.3%
Russian Federation	3094	3140	3163	3300	3197	3277	3282	3313	3380	3214	**3414**	6.2%	1.0%	3.5%
Turkmenistan	125	129	137	143	145	143	144	145	146	140	**146**	4.5%	1.6%	0.2%
Uzbekistan	104	88	83	82	83	86	87	95	95	83	**90**	8.8%	-1.5%	0.1%
Other CIS	65	75	78	76	78	86	82	96	89	77	**84**	8.6%	2.5%	0.1%
Total CIS	3921	4026	4021	4169	4029	4141	4155	4262	4335	4073	**4315**	5.9%	1.0%	4.5%
Iran	1715	1762	1879	1765	1580	1579	1656	1728	1784	1673	**1690**	1.0%	-0.1%	1.7%
Iraq	564	619	688	650	630	687	720	847	720	629	**722**	14.8%	2.5%	0.7%
Israel	234	274	213	200	211	217	227	230	232	201	**210**	4.6%	-1.0%	0.2%
Kuwait	467	467	477	488	475	449	470	481	471	441	**450**	1.9%	-0.4%	0.5%
Oman	146	157	178	185	184	187	224	232	224	190	**209**	9.8%	3.6%	0.2%
Qatar	244	260	303	312	356	369	335	347	369	296	**311**	5.1%	2.5%	0.3%
Saudi Arabia	3285	3451	3444	3779	3901	3962	3870	3762	3691	3552	**3595**	1.2%	0.9%	3.7%
United Arab Emirates	723	766	847	858	927	1021	1006	1004	972	855	**952**	11.4%	2.8%	1.0%
Other Middle East	735	696	653	652	566	535	570	552	541	482	**502**	4.1%	-3.7%	0.5%
Total Middle East	8112	8452	8681	8889	8830	9006	9079	9183	9005	8319	**8642**	3.9%	0.6%	8.9%
Algeria	349	370	387	401	425	412	408	416	431	385	**403**	4.7%	1.4%	0.4%
Egypt	740	750	759	791	810	836	801	721	686	598	**648**	8.3%	-1.3%	0.7%
Morocco	275	277	282	272	268	275	291	287	293	258	**286**	10.8%	0.4%	0.3%
South Africa	533	543	554	546	602	577	577	578	571	468	**505**	7.9%	-0.5%	0.5%
Eastern Africa	447	466	493	513	560	569	604	626	627	549	**588**	7.1%	2.8%	0.6%
Middle Africa	230	251	284	298	290	267	252	251	262	239	**257**	7.6%	1.1%	0.3%
Western Africa	543	573	594	555	563	623	679	787	801	790	**856**	8.4%	4.7%	0.9%
Other Northern Africa	263	332	347	358	318	295	303	308	318	269	**326**	21.0%	2.1%	0.3%
Other Southern Africa	49	51	54	56	57	56	57	58	59	54	**56**	3.4%	1.3%	0.1%
Total Africa	3430	3613	3754	3789	3893	3912	3972	4033	4048	3611	**3925**	8.7%	1.4%	4.1%
Australia	988	1008	1038	1032	1021	1021	1068	1080	1069	919	**947**	3.0%	-0.4%	1.0%
Bangladesh	104	110	108	120	127	138	156	178	171	156	**179**	14.6%	5.6%	0.2%
China	9687	10127	10648	11107	11959	12372	13071	13729	14399	14470	**15522**	7.3%	4.8%	16.0%
China Hong Kong SAR	361	344	352	335	368	380	428	435	409	285	**256**	-10.5%	-3.4%	0.3%
India	3510	3708	3751	3871	4188	4593	4767	5032	5215	4764	**4954**	4.0%	3.5%	5.1%
Indonesia	1539	1626	1592	1606	1524	1508	1612	1683	1691	1545	**1634**	5.8%	0.6%	1.7%
Japan	4417	4683	4507	4293	4128	3997	3965	3830	3708	3285	**3357**	2.2%	-2.7%	3.5%
Malaysia	696	760	806	809	762	847	805	814	882	761	**778**	2.3%	1.1%	0.8%
New Zealand	153	150	152	155	161	165	175	175	179	147	**144**	-1.9%	-0.6%	0.1%
Pakistan	414	402	442	458	505	566	589	498	446	437	**503**	15.1%	2.0%	0.5%
Philippines	298	309	326	347	397	427	459	464	474	391	**427**	9.3%	3.7%	0.4%
Singapore	1208	1202	1217	1259	1329	1372	1405	1432	1403	1343	**1330**	-1.0%	1.0%	1.4%
South Korea	2395	2474	2488	2483	2595	2821	2814	2814	2804	2645	**2828**	6.9%	1.7%	2.9%
Sri Lanka	102	109	94	106	111	134	130	126	135	123	**119**	-3.3%	1.5%	0.1%
Taiwan	962	952	989	1018	1042	1048	1033	1040	987	947	**990**	4.5%	0.3%	1.0%
Thailand	1159	1224	1250	1267	1309	1338	1384	1416	1432	1272	**1268**	-0.3%	0.9%	1.3%
Vietnam	358	362	375	397	482	524	552	581	599	493	**464**	-5.8%	2.6%	0.5%
Other Asia Pacific	322	333	352	378	424	432	434	486	510	524	**546**	4.2%	5.4%	0.6%
Total Asia Pacific	28673	29882	30489	31043	32432	33685	34847	35811	36511	34507	**36245**	5.0%	2.4%	37.4%
Total World	**89323**	**90479**	**91991**	**92805**	**94792**	**96566**	**98385**	**100125**	**100550**	**91360**	**96908**	**6.1%**	**0.8%**	**100.0%**
of which: OECD	46473	46069	46146	45756	46508	47073	47547	48044	47730	41900	**44592**	6.4%	-0.4%	46.0%
Non-OECD	42851	44409	45845	47049	48283	49494	50838	52081	52821	49459	**52316**	5.8%	2.0%	54.0%
European Union	11941	11486	11244	11058	11231	11406	11657	11708	11676	10234	**10814**	5.7%	-1.0%	11.2%

*Inland demand plus international aviation and marine bunkers and refinery fuel and loss. Consumption of biogasoline (such as ethanol), biodiesel and derivatives of coal and natural gas are also included.

♦Less than 0.05%.

Note: Differences between these world consumption figures and world production statistics are accounted for by stock changes, consumption of non-petroleum additives and substitute fuels, and unavoidable disparities in the definition, measurement or conversion of oil supply and demand data.

Annual changes and shares of total are calculated using thousand barrels daily figures.

Growth rates are adjusted for leap years.

Oil: Consumption in thousands of barrels per day*

Thousand barrels daily	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	**2021**	Growth rate per annum 2021	2011-21	Share 2021
Canada	2400	2426	2422	2420	2443	2453	2424	2501	2491	2191	**2229**	1.7%	-0.7%	2.4%
Mexico	2065	2083	2034	1960	1939	1950	1883	1836	1698	1313	**1350**	2.9%	-4.2%	1.4%
US	17993	17581	17992	18111	18499	18593	18845	19417	19424	17183	**18684**	8.7%	0.4%	19.9%
Total North America	22458	22090	22448	22491	22881	22996	23153	23753	23613	20687	**22264**	7.6%	-0.1%	23.7%
Argentina	612	647	688	678	694	675	670	640	572	518	**598**	15.4%	-0.2%	0.6%
Brazil	2434	2519	2656	2729	2488	2370	2407	2293	2303	2134	**2252**	5.5%	-0.8%	2.4%
Chile	371	376	362	353	355	377	364	379	383	349	**365**	4.4%	-0.2%	0.4%
Colombia	259	279	277	292	312	320	313	322	340	277	**349**	26.0%	3.0%	0.4%
Ecuador	226	233	247	260	254	239	236	255	249	202	**247**	22.5%	0.9%	0.3%
Peru	211	211	222	221	235	250	260	267	278	210	**266**	26.3%	2.3%	0.3%
Trinidad & Tobago	42	40	45	41	45	47	44	41	32	28	**25**	-10.4%	-5.0%	♦
Venezuela	721	785	835	746	697	537	493	410	339	277	**289**	4.3%	-8.7%	0.3%
Central America	366	369	372	386	420	435	444	423	454	382	**433**	13.5%	1.7%	0.5%
Other Caribbean	637	617	591	581	604	624	611	622	617	511	**569**	11.3%	-1.1%	0.6%
Other South America	186	189	193	193	198	210	216	223	225	211	**229**	8.4%	2.1%	0.2%
Total S. & Cent. America	6066	6264	6491	6481	6302	6085	6057	5877	5791	5100	**5622**	10.2%	-0.8%	6.0%
Austria	244	244	252	242	241	249	252	255	265	229	**236**	2.8%	-0.4%	0.3%
Belgium	624	602	624	620	641	644	653	693	651	568	**638**	12.4%	0.2%	0.7%
Bulgaria	80	83	77	84	94	95	99	98	102	91	**96**	5.4%	1.8%	0.1%
Croatia	72	65	63	65	68	68	73	71	69	59	**65**	9.8%	-1.1%	0.1%
Cyprus	55	51	46	45	46	51	52	52	52	44	**45**	3.3%	-1.9%	♦
Czech Republic	191	189	181	192	184	172	205	207	209	181	**200**	10.6%	0.5%	0.2%
Denmark	165	153	152	153	155	153	152	154	154	127	**128**	1.1%	-2.5%	0.1%
Estonia	27	32	31	29	29	29	30	30	27	28	**29**	3.7%	0.6%	♦
Finland	202	194	208	197	196	206	200	200	199	178	**178**	-0.4%	-1.3%	0.2%
France	1666	1609	1596	1544	1544	1529	1540	1538	1528	1307	**1424**	9.0%	-1.6%	1.5%
Germany	2294	2276	2336	2273	2269	2307	2374	2255	2270	2049	**2045**	-0.2%	-1.1%	2.2%
Greece	350	305	282	281	294	293	298	294	304	246	**249**	1.5%	-3.3%	0.3%
Hungary	138	129	128	142	153	150	164	175	176	161	**171**	6.3%	2.2%	0.2%
Iceland	14	14	15	16	17	19	21	23	19	13	**13**	2.2%	-1.1%	♦
Ireland	147	138	138	137	143	149	149	155	153	130	**133**	2.0%	-1.0%	0.1%
Italy	1465	1367	1261	1196	1264	1255	1274	1300	1259	1039	**1156**	11.2%	-2.3%	1.2%
Latvia	33	33	33	34	35	36	37	34	38	33	**34**	2.0%	0.3%	♦
Lithuania	52	53	52	51	55	60	62	66	66	61	**64**	4.6%	2.1%	0.1%
Luxembourg	60	58	57	55	54	54	57	60	61	49	**51**	3.6%	-1.7%	0.1%
Netherlands	962	916	889	856	826	843	818	843	812	740	**742**	0.3%	-2.6%	0.8%
North Macedonia	20	19	19	19	20	22	21	21	22	20	**24**	16.0%	1.9%	♦
Norway	222	215	226	216	217	210	212	221	213	204	**199**	-2.3%	-1.1%	0.2%
Poland	574	552	520	521	542	594	646	663	679	640	**687**	7.4%	1.8%	0.7%
Portugal	249	225	235	241	238	241	240	239	247	202	**208**	3.2%	-1.8%	0.2%
Romania	186	186	170	184	186	195	206	212	221	205	**225**	9.5%	1.9%	0.2%
Slovakia	78	72	72	67	73	76	86	87	83	82	**86**	4.9%	1.1%	0.1%
Slovenia	54	53	50	49	49	52	53	55	52	44	**47**	6.8%	-1.5%	♦
Spain	1330	1237	1169	1165	1209	1252	1260	1286	1287	1056	**1169**	10.7%	-1.3%	1.2%
Sweden	295	292	291	285	279	289	286	273	292	255	**270**	5.9%	-0.9%	0.3%
Switzerland	234	238	249	224	226	214	219	212	216	179	**181**	0.9%	-2.5%	0.2%
Turkey	672	702	748	771	915	973	1022	989	999	913	**939**	2.9%	3.4%	1.0%
Ukraine	291	287	274	244	215	228	230	240	239	227	**237**	4.4%	-2.0%	0.3%
United Kingdom	1561	1508	1490	1491	1538	1587	1594	1569	1522	1172	**1236**	5.5%	-2.3%	1.3%
Other Europe	320	299	297	294	305	326	342	338	347	314	**322**	2.7%	0.1%	0.3%
Total Europe	14927	14396	14232	13980	14321	14622	14928	14903	14831	12846	**13527**	5.3%	-1.0%	14.4%
Azerbaijan	89	92	101	99	100	98	99	104	105	91	**95**	4.3%	0.7%	0.1%
Belarus	174	213	160	164	138	147	147	171	174	167	**159**	-4.3%	-0.9%	0.2%
Kazakhstan	270	288	297	304	289	304	313	338	345	302	**327**	8.3%	2.0%	0.3%
Russian Federation	3094	3140	3163	3300	3197	3275	3280	3310	3376	3210	**3407**	6.1%	1.0%	3.6%
Turkmenistan	125	129	137	143	145	143	144	145	146	140	**146**	4.5%	1.6%	0.2%
Uzbekistan	104	88	83	82	83	86	87	95	95	83	**90**	8.8%	-1.5%	0.1%
Other CIS	65	75	78	76	78	86	82	96	89	77	**84**	8.6%	2.5%	0.1%
Total CIS	3920	4025	4020	4168	4029	4140	4152	4259	4331	4069	**4307**	5.9%	0.9%	4.6%
Iran	1715	1762	1879	1765	1580	1579	1656	1728	1784	1673	**1690**	1.0%	-0.1%	1.8%
Iraq	564	619	688	650	630	687	720	847	720	629	**722**	14.8%	2.5%	0.8%
Israel	233	274	212	199	211	216	226	229	231	200	**209**	4.6%	-1.1%	0.2%
Kuwait	467	467	477	488	475	449	470	481	471	441	**450**	1.9%	-0.4%	0.5%
Oman	146	157	178	185	184	187	224	232	224	190	**209**	9.8%	3.6%	0.2%
Qatar	244	260	303	312	356	369	335	347	369	296	**311**	5.1%	2.5%	0.3%
Saudi Arabia	3285	3451	3444	3779	3901	3962	3870	3762	3691	3552	**3595**	1.2%	0.9%	3.8%
United Arab Emirates	723	766	847	858	927	1021	1006	1004	972	855	**952**	11.4%	2.8%	1.0%
Other Middle East	735	696	653	652	566	535	570	552	541	482	**502**	4.1%	-3.7%	0.5%
Total Middle East	8112	8451	8681	8889	8829	9005	9078	9182	9004	8318	**8640**	3.9%	0.6%	9.2%
Algeria	349	370	387	401	425	412	408	416	431	385	**403**	4.7%	1.4%	0.4%
Egypt	740	750	759	791	810	836	801	721	686	598	**648**	8.3%	-1.3%	0.7%
Morocco	275	277	282	272	268	275	291	287	293	258	**286**	10.8%	0.4%	0.3%
South Africa	532	542	552	544	601	576	576	575	569	465	**502**	7.9%	-0.6%	0.5%
Eastern Africa	447	466	492	513	559	569	604	626	626	549	**588**	7.1%	2.8%	0.6%
Middle Africa	230	251	284	298	290	267	252	251	262	239	**257**	7.6%	1.1%	0.3%
Western Africa	543	573	594	555	563	623	679	787	801	790	**856**	8.4%	4.7%	0.9%
Other Northern Africa	263	332	347	358	318	295	303	308	318	269	**326**	21.0%	2.1%	0.3%
Other Southern Africa	49	51	54	56	57	56	57	58	59	54	**56**	3.4%	1.3%	0.1%
Total Africa	3428	3612	3752	3788	3891	3910	3970	4030	4046	3608	**3922**	8.7%	1.4%	4.2%
Australia	980	1001	1031	1025	1015	1016	1063	1076	1064	916	**943**	3.0%	-0.4%	1.0%
Bangladesh	104	110	108	120	127	138	156	178	171	156	**179**	14.6%	5.6%	0.2%
China	9630	10061	10563	11018	11890	12297	13003	13642	14321	14408	**15442**	7.2%	4.8%	16.4%
China Hong Kong SAR	360	344	352	335	367	380	428	434	408	285	**255**	-10.5%	-3.4%	0.3%
India	3475	3674	3717	3832	4147	4544	4724	4974	5150	4701	**4878**	3.8%	3.5%	5.2%
Indonesia	1530	1612	1572	1572	1505	1454	1565	1616	1578	1398	**1471**	5.2%	-0.4%	1.6%
Japan	4410	4676	4499	4283	4116	3983	3949	3815	3692	3269	**3341**	2.2%	-2.7%	3.6%
Malaysia	696	757	802	803	753	839	797	804	868	749	**763**	1.8%	0.9%	0.8%
New Zealand	152	150	152	155	161	165	175	174	178	147	**144**	-1.9%	-0.6%	0.2%
Pakistan	414	402	442	458	505	566	589	498	446	437	**503**	15.1%	2.0%	0.5%
Philippines	292	301	316	336	384	413	445	450	459	378	**412**	9.1%	3.5%	0.4%
Singapore	1208	1202	1217	1259	1329	1372	1405	1432	1403	1343	**1330**	-1.0%	1.0%	1.4%
South Korea	2388	2466	2476	2473	2586	2811	2804	2800	2789	2630	**2813**	6.9%	1.6%	3.0%
Sri Lanka	102	109	94	106	111	134	130	126	135	123	**119**	-3.3%	1.5%	0.1%
Taiwan	961	950	987	1017	1041	1047	1032	1039	986	946	**989**	4.5%	0.3%	1.1%
Thailand	1140	1201	1216	1227	1265	1294	1336	1362	1374	1214	**1214**	♦	0.6%	1.3%
Vietnam	358	362	375	397	482	524	552	581	599	493	**464**	-5.8%	2.6%	0.5%
Other Asia Pacific	322	333	352	378	424	432	434	486	510	524	**546**	4.2%	5.4%	0.6%
Total Asia Pacific	28522	29709	30273	30795	32211	33410	34586	35486	36131	34117	**35806**	4.9%	2.3%	38.1%
Total World	**87433**	**88547**	**89897**	**90592**	**92464**	**94169**	**95924**	**97490**	**97747**	**88746**	**94088**	**6.0%**	**0.7%**	**100.0%**
of which: OECD	45155	44716	44746	44317	45026	45522	45952	46420	46070	40360	**42941**	6.4%	-0.5%	45.6%
Non-OECD	42278	43831	45151	46275	47439	48647	49972	51070	51677	48386	**51147**	5.7%	1.9%	54.4%
European Union	11637	11157	10955	10749	10913	11090	11319	11345	11307	9853	**10421**	5.8%	-1.1%	11.1%

*Inland demand plus international aviation and marine bunkers and refinery fuel and loss. Consumption of biogasoline (such as ethanol), biodiesel and derivatives of coal and natural gas are excluded. Derivatives of coal and natural gas are included.
♦Less than 0.05%.
Notes: Differences between these world consumption figures and world production statistics are accounted for by stock changes, consumption of non-petroleum additives and substitute fuels, and unavoidable disparities in the definition, measurement or conversion of oil supply and demand data.
Annual changes and shares of total are calculated using thousand barrels daily figures.
Growth rates are adjusted for leap years.

Oil: Consumption in exajoules*

Exajoules	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Growth rate per annum 2021	Growth rate per annum 2011-21	Share 2022
Canada	4.58	4.64	4.62	4.61	4.63	4.61	4.57	4.73	4.70	4.11	**4.17**	1.7%	-0.9%	2.3%
Mexico	3.97	4.04	3.93	3.75	3.70	3.73	3.59	3.51	3.24	2.47	**2.56**	4.1%	-4.3%	1.4%
US	34.90	34.10	34.66	34.90	35.61	35.86	36.21	37.08	37.02	32.52	**35.33**	8.9%	0.1%	19.2%
Total North America	43.45	42.78	43.20	43.26	43.94	44.21	44.38	45.32	44.96	39.10	**42.06**	7.9%	-0.3%	22.8%
Argentina	1.22	1.30	1.38	1.37	1.39	1.35	1.34	1.27	1.17	1.07	**1.23**	14.8%	◆	0.7%
Brazil	4.83	5.00	5.27	5.44	4.94	4.70	4.75	4.51	4.54	4.22	**4.46**	5.9%	-0.8%	2.4%
Chile	0.76	0.76	0.73	0.71	0.72	0.76	0.73	0.76	0.77	0.70	**0.73**	4.6%	-0.4%	0.4%
Colombia	0.52	0.57	0.56	0.59	0.63	0.65	0.63	0.65	0.69	0.56	**0.70**	26.3%	3.0%	0.4%
Ecuador	0.46	0.47	0.50	0.53	0.51	0.48	0.47	0.51	0.49	0.40	**0.49**	24.1%	0.7%	0.3%
Peru	0.42	0.42	0.44	0.43	0.46	0.49	0.51	0.52	0.54	0.41	**0.52**	27.5%	2.1%	0.3%
Trinidad & Tobago	0.09	0.09	0.10	0.09	0.09	0.10	0.09	0.09	0.07	0.06	**0.05**	-10.0%	-5.1%	◆
Venezuela	1.46	1.59	1.71	1.52	1.42	1.08	1.00	0.82	0.69	0.57	**0.59**	4.2%	-8.6%	0.3%
Central America	0.77	0.78	0.78	0.81	0.88	0.91	0.92	0.87	0.94	0.78	**0.89**	13.2%	1.4%	0.5%
Other Caribbean	1.36	1.32	1.26	1.23	1.28	1.33	1.29	1.32	1.30	1.08	**1.20**	11.7%	-1.2%	0.7%
Other South America	0.38	0.39	0.39	0.39	0.40	0.43	0.44	0.45	0.45	0.43	**0.46**	8.6%	1.9%	0.3%
Total S. & Cent. America	12.27	12.68	13.12	13.11	12.74	12.28	12.16	11.77	11.65	10.26	**11.31**	10.5%	-0.8%	6.1%
Austria	0.51	0.51	0.53	0.50	0.50	0.52	0.53	0.53	0.55	0.48	**0.49**	2.7%	-0.4%	0.3%
Belgium	1.29	1.24	1.28	1.26	1.30	1.32	1.34	1.42	1.33	1.15	**1.30**	13.1%	◆	0.7%
Bulgaria	0.16	0.17	0.16	0.17	0.19	0.19	0.20	0.20	0.21	0.19	**0.20**	5.5%	1.9%	0.1%
Croatia	0.15	0.13	0.13	0.14	0.14	0.14	0.15	0.15	0.14	0.12	**0.13**	9.7%	-1.1%	0.1%
Cyprus	0.12	0.11	0.10	0.10	0.10	0.11	0.11	0.11	0.11	0.09	**0.10**	3.4%	-2.0%	0.1%
Czech Republic	0.39	0.38	0.37	0.39	0.38	0.35	0.42	0.42	0.42	0.37	**0.41**	10.3%	0.4%	0.2%
Denmark	0.35	0.32	0.32	0.32	0.33	0.32	0.32	0.32	0.32	0.27	**0.27**	0.7%	-2.6%	0.1%
Estonia	0.06	0.07	0.07	0.06	0.06	0.06	0.06	0.06	0.06	0.06	**0.06**	4.0%	0.6%	◆
Finland	0.41	0.40	0.41	0.39	0.39	0.41	0.40	0.40	0.39	0.35	**0.35**	-0.5%	-1.6%	0.2%
France	3.45	3.34	3.29	3.19	3.19	3.17	3.18	3.17	3.14	2.68	**2.91**	8.7%	-1.7%	1.6%
Germany	4.73	4.70	4.80	4.67	4.67	4.76	4.87	4.63	4.66	4.22	**4.18**	-0.6%	-1.2%	2.3%
Greece	0.74	0.64	0.59	0.59	0.61	0.61	0.63	0.62	0.64	0.52	**0.52**	0.1%	-3.5%	0.3%
Hungary	0.28	0.26	0.25	0.28	0.30	0.30	0.33	0.35	0.35	0.32	**0.34**	6.1%	2.1%	0.2%
Iceland	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.05	0.04	0.03	**0.03**	2.1%	-1.1%	◆
Ireland	0.30	0.29	0.29	0.28	0.30	0.31	0.31	0.32	0.32	0.27	**0.28**	1.9%	-1.0%	0.1%
Italy	2.98	2.78	2.54	2.42	2.56	2.54	2.57	2.63	2.55	2.11	**2.35**	11.7%	-2.4%	1.3%
Latvia	0.07	0.07	0.07	0.07	0.07	0.08	0.08	0.07	0.08	0.07	**0.07**	1.9%	0.2%	◆
Lithuania	0.11	0.11	0.11	0.11	0.12	0.13	0.13	0.14	0.14	0.13	**0.14**	4.7%	2.2%	0.1%
Luxembourg	0.13	0.12	0.12	0.11	0.11	0.11	0.12	0.12	0.13	0.10	**0.11**	3.4%	-1.7%	0.1%
Netherlands	1.97	1.87	1.77	1.69	1.65	1.71	1.64	1.68	1.65	1.51	**1.51**	0.5%	-2.6%	0.8%
North Macedonia	0.04	0.04	0.04	0.04	0.04	0.05	0.04	0.04	0.05	0.04	**0.05**	16.5%	1.8%	◆
Norway	0.43	0.42	0.44	0.41	0.41	0.40	0.40	0.41	0.39	0.38	**0.38**	0.4%	-1.3%	0.2%
Poland	1.16	1.11	1.04	1.04	1.09	1.20	1.30	1.33	1.36	1.29	**1.38**	7.5%	1.8%	0.7%
Portugal	0.51	0.46	0.48	0.49	0.48	0.49	0.49	0.49	0.50	0.41	**0.42**	3.2%	-1.9%	0.2%
Romania	0.38	0.38	0.35	0.38	0.38	0.40	0.42	0.43	0.45	0.42	**0.46**	9.1%	1.8%	0.2%
Slovakia	0.16	0.15	0.15	0.14	0.15	0.16	0.18	0.18	0.17	0.17	**0.18**	5.3%	0.9%	0.1%
Slovenia	0.11	0.11	0.10	0.10	0.10	0.11	0.11	0.11	0.11	0.09	**0.10**	6.4%	-1.5%	0.1%
Spain	2.81	2.62	2.47	2.46	2.54	2.63	2.64	2.69	2.70	2.21	**2.45**	11.0%	-1.4%	1.3%
Sweden	0.61	0.60	0.59	0.58	0.57	0.59	0.58	0.55	0.59	0.53	**0.54**	1.8%	-1.2%	0.3%
Switzerland	0.48	0.49	0.51	0.46	0.47	0.44	0.45	0.43	0.44	0.37	**0.37**	0.7%	-2.5%	0.2%
Turkey	1.34	1.41	1.51	1.55	1.85	1.98	2.07	2.00	2.01	1.84	**1.89**	3.0%	3.5%	1.0%
Ukraine	0.58	0.58	0.55	0.48	0.43	0.45	0.45	0.47	0.46	0.44	**0.46**	4.7%	-2.3%	0.2%
United Kingdom	3.14	3.05	3.00	3.00	3.08	3.18	3.19	3.14	3.06	2.35	**2.50**	6.4%	-2.3%	1.4%
Other Europe	0.69	0.65	0.63	0.63	0.65	0.70	0.73	0.72	0.74	0.67	**0.69**	2.3%	◆	0.4%
Total Europe	30.67	29.62	29.09	28.53	29.25	29.94	30.47	30.40	30.28	26.25	**27.57**	5.3%	-1.1%	15.0%
Azerbaijan	0.17	0.18	0.20	0.20	0.20	0.20	0.20	0.21	0.21	0.18	**0.19**	3.9%	0.7%	0.1%
Belarus	0.36	0.44	0.33	0.34	0.28	0.30	0.30	0.35	0.36	0.34	**0.33**	-4.8%	-0.8%	0.2%
Kazakhstan	0.55	0.59	0.60	0.62	0.58	0.60	0.62	0.66	0.67	0.59	**0.63**	7.0%	1.3%	0.3%
Russian Federation	6.20	6.30	6.30	6.60	6.34	6.50	6.48	6.55	6.69	6.34	**6.71**	6.1%	0.8%	3.6%
Turkmenistan	0.25	0.26	0.27	0.28	0.28	0.28	0.28	0.28	0.29	0.27	**0.28**	4.4%	1.2%	0.2%
Uzbekistan	0.22	0.18	0.17	0.16	0.16	0.17	0.17	0.18	0.18	0.16	**0.17**	9.4%	-2.2%	0.1%
Other CIS	0.13	0.15	0.15	0.15	0.15	0.17	0.16	0.19	0.17	0.15	**0.16**	9.3%	2.0%	0.1%
Total CIS	7.88	8.11	8.02	8.34	8.00	8.23	8.21	8.43	8.57	8.03	**8.47**	5.7%	0.7%	4.6%
Iran	3.43	3.54	3.78	3.50	3.08	3.06	3.15	3.29	3.42	3.22	**3.25**	1.1%	-0.6%	1.8%
Iraq	1.15	1.27	1.41	1.32	1.28	1.41	1.47	1.75	1.47	1.29	**1.48**	14.9%	2.5%	0.8%
Israel	0.47	0.56	0.42	0.39	0.42	0.43	0.45	0.45	0.46	0.40	**0.41**	4.5%	-1.2%	0.2%
Kuwait	0.88	0.88	0.90	0.92	0.89	0.84	0.88	0.91	0.88	0.82	**0.83**	2.5%	-0.6%	0.5%
Oman	0.29	0.32	0.36	0.37	0.38	0.39	0.46	0.47	0.46	0.39	**0.42**	9.2%	3.7%	0.2%
Qatar	0.36	0.38	0.46	0.48	0.57	0.59	0.53	0.55	0.60	0.45	**0.49**	8.0%	2.9%	0.3%
Saudi Arabia	6.03	6.34	6.36	7.02	7.29	7.36	7.14	6.90	6.78	6.54	**6.59**	1.1%	0.9%	3.6%
United Arab Emirates	1.44	1.51	1.67	1.67	1.78	1.95	1.93	1.92	1.87	1.62	**1.81**	12.4%	2.3%	1.0%
Other Middle East	1.51	1.43	1.34	1.33	1.15	1.09	1.16	1.13	1.10	0.98	**1.02**	3.9%	-3.9%	0.6%
Total Middle East	15.56	16.22	16.69	17.02	16.85	17.13	17.18	17.37	17.04	15.70	**16.30**	4.1%	0.5%	8.8%
Algeria	0.69	0.74	0.77	0.80	0.85	0.83	0.81	0.83	0.85	0.76	**0.79**	4.2%	1.4%	0.4%
Egypt	1.49	1.52	1.54	1.62	1.66	1.71	1.62	1.45	1.37	1.18	**1.28**	8.9%	-1.5%	0.7%
Morocco	0.55	0.56	0.56	0.54	0.52	0.54	0.57	0.55	0.56	0.49	**0.55**	11.8%	-0.1%	0.3%
South Africa	1.10	1.13	1.15	1.13	1.25	1.19	1.19	1.19	1.18	0.96	**1.04**	8.2%	-0.5%	0.6%
Eastern Africa	0.93	0.97	1.02	1.06	1.15	1.17	1.25	1.29	1.29	1.13	**1.20**	7.0%	2.6%	0.7%
Middle Africa	0.46	0.51	0.58	0.61	0.59	0.55	0.51	0.51	0.53	0.49	**0.52**	7.6%	1.1%	0.3%
Western Africa	1.10	1.16	1.20	1.12	1.13	1.25	1.36	1.56	1.59	1.57	**1.70**	8.3%	4.5%	0.9%
Other Northern Africa	0.54	0.69	0.72	0.73	0.65	0.60	0.62	0.63	0.65	0.55	**0.67**	21.5%	2.2%	0.4%
Other Southern Africa	0.10	0.10	0.11	0.11	0.12	0.11	0.12	0.12	0.12	0.11	**0.11**	3.4%	1.3%	0.1%
Total Africa	6.96	7.37	7.64	7.72	7.92	7.96	8.04	8.13	8.14	7.24	**7.86**	8.9%	1.2%	4.3%
Australia	1.97	2.02	2.08	2.07	2.05	2.06	2.16	2.20	2.18	1.88	**1.93**	3.0%	-0.2%	1.0%
Bangladesh	0.22	0.23	0.23	0.26	0.27	0.30	0.34	0.38	0.37	0.34	**0.38**	15.0%	5.8%	0.2%
China	19.41	20.36	21.27	22.11	23.80	24.56	25.86	27.12	28.49	28.74	**30.60**	6.7%	4.7%	16.6%
China Hong Kong SAR	0.77	0.74	0.75	0.71	0.78	0.81	0.92	0.93	0.87	0.61	**0.55**	-10.3%	-3.4%	0.3%
India	6.91	7.33	7.38	7.59	8.20	8.99	9.26	9.68	9.99	9.08	**9.41**	3.9%	3.1%	5.1%
Indonesia	3.05	3.21	3.11	3.09	2.95	2.84	3.05	3.15	3.06	2.70	**2.83**	5.2%	-0.8%	1.5%
Japan	8.78	9.37	8.96	8.51	8.17	7.93	7.81	7.56	7.32	6.49	**6.61**	2.2%	-2.8%	3.6%
Malaysia	1.32	1.45	1.54	1.54	1.43	1.60	1.50	1.52	1.66	1.43	**1.46**	2.3%	1.0%	0.8%
New Zealand	0.31	0.31	0.31	0.32	0.33	0.34	0.36	0.35	0.36	0.30	**0.29**	-2.2%	-0.7%	0.2%
Pakistan	0.88	0.86	0.94	0.97	1.06	1.18	1.22	1.02	0.90	0.88	**1.02**	15.8%	1.4%	0.6%
Philippines	0.59	0.61	0.64	0.68	0.77	0.83	0.89	0.89	0.91	0.75	**0.82**	9.9%	3.4%	0.4%
Singapore	2.68	2.67	2.69	2.76	2.91	3.02	3.10	3.14	3.05	2.96	**2.93**	-0.6%	0.9%	1.6%
South Korea	4.63	4.80	4.81	4.79	5.02	5.47	5.42	5.40	5.35	5.06	**5.39**	6.8%	1.5%	2.9%
Sri Lanka	0.21	0.23	0.19	0.22	0.23	0.27	0.26	0.25	0.28	0.25	**0.24**	-3.5%	1.2%	0.1%
Taiwan	1.89	1.86	1.92	1.98	2.03	2.04	2.02	2.01	1.90	1.83	**1.92**	5.1%	0.2%	1.0%
Thailand	2.10	2.21	2.23	2.25	2.34	2.42	2.48	2.53	2.56	2.26	**2.25**	-0.6%	0.7%	1.2%
Vietnam	0.72	0.73	0.75	0.80	0.97	1.06	1.11	1.17	1.21	1.00	**0.94**	-5.9%	2.7%	0.5%
Other Asia Pacific	0.66	0.69	0.72	0.77	0.86	0.87	0.88	0.98	1.03	1.05	**1.09**	4.2%	5.1%	0.6%
Total Asia Pacific	57.11	59.66	60.52	61.42	64.18	66.61	68.63	70.29	71.49	67.59	**70.65**	4.8%	2.1%	38.4%
Total World	**173.91**	**176.44**	**178.27**	**179.40**	**182.87**	**186.34**	**189.06**	**191.70**	**192.13**	**174.17**	**184.21**	**6.1%**	**0.6%**	**100.0%**
of which: OECD	89.44	88.72	88.21	87.24	88.59	89.74	90.28	90.97	90.20	78.75	**83.62**	6.5%	-0.7%	45.4%
Non-OECD	84.47	87.72	90.06	92.15	94.28	96.60	98.77	100.73	101.93	95.42	**100.59**	5.7%	1.8%	54.6%
European Union	24.03	23.05	22.47	22.02	22.38	22.81	23.20	23.25	23.19	20.24	**21.32**	5.6%	-1.2%	11.6%

*Inland demand plus international aviation and marine bunkers and refinery fuel and loss. Consumption of biogasoline (such as ethanol), biodiesel and derivatives of coal and natural gas are excluded. Derivatives of coal and natural gas are included.
◆Less than 0.05%.
Notes: Differences between these world consumption figures and world production statistics are accounted for by stock changes, consumption of non-petroleum additives and substitute fuels, and unavoidable disparities in the definition, measurement or conversion of oil supply and demand data.
Annual changes and shares of total are calculated using exajoules figures.
Growth rates are adjusted for leap years.

Oil: Regional consumption – by product group

Thousand barrels daily	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	**2021**	Growth rate per annum 2021	2011-21	Share 2021
North America														
Light distillates	9798	9687	9871	9916	10138	10296	10231	10241	10162	8694	**9396**	8.1%	-0.4%	10.0%
of which: gasoline	9432	9356	9492	9566	9801	9967	9945	9949	9898	8456	**9160**	8.3%	-0.3%	9.7%
of which: naphtha	366	332	379	350	337	329	285	291	264	237	**236**	-0.5%	-4.3%	0.3%
Middle distillates	6609	6370	6429	6689	6728	6608	6768	7079	6972	5705	**6172**	8.2%	-0.7%	6.6%
of which: diesel/gasoil	5005	4788	4798	5013	4961	4766	4848	5115	4973	4499	**4644**	3.2%	-0.7%	4.9%
of which: jet/kerosene	1604	1582	1631	1676	1767	1842	1920	1964	1999	1206	**1528**	26.7%	-0.5%	1.6%
Fuel oil	727	657	580	451	423	472	517	472	394	299	**423**	41.3%	-5.3%	0.4%
Others	5324	5375	5569	5435	5592	5620	5636	5961	6085	5989	**6273**	4.7%	1.7%	6.7%
of which: ethane and LPG	3181	3189	3366	3292	3361	3428	3453	3789	3820	3873	**3989**	3.0%	2.3%	4.2%
Total North America	22458	22090	22448	22491	22881	22996	23153	23753	23613	20687	**22264**	7.6%	-0.1%	23.7%
of which: US														
Light distillates	8181	8094	8263	8287	8503	8613	8621	8633	8579	7419	**8084**	9.0%	-0.1%	8.6%
of which: gasoline	7926	7858	7993	8056	8280	8394	8393	8400	8372	7235	**7897**	9.2%	♦	8.4%
of which: naphtha	254	236	270	231	223	219	228	233	207	185	**187**	1.2%	-3.0%	0.2%
Middle distillates	5456	5215	5259	5519	5534	5438	5580	5815	5793	4793	**5232**	9.2%	-0.4%	5.6%
of which: diesel/gasoil	4018	3811	3819	4040	3979	3815	3893	4103	4043	3709	**3856**	4.0%	-0.4%	4.1%
of which: jet/kerosene	1438	1403	1440	1479	1555	1623	1687	1712	1750	1084	**1376**	27.0%	-0.4%	1.5%
Fuel oil	459	367	317	256	258	325	341	317	275	208	**313**	50.4%	-3.8%	0.3%
Others	3897	3905	4153	4049	4204	4216	4303	4652	4777	4763	**5056**	6.1%	2.6%	5.4%
of which: ethane and LPG	2295	2312	2514	2447	2493	2516	2570	2921	2967	3056	**3186**	4.3%	3.3%	3.4%
Total US	17993	17581	17992	18111	18499	18593	18845	19417	19424	17183	**18684**	8.7%	0.4%	19.9%
S. & Cent. America														
Light distillates	1567	1634	1665	1682	1655	1670	1695	1591	1545	1287	**1481**	15.1%	-0.6%	1.6%
of which: gasoline	1383	1449	1505	1526	1487	1516	1524	1441	1379	1169	**1354**	15.8%	-0.2%	1.4%
of which: naphtha	184	185	161	156	168	154	171	150	166	118	**128**	8.4%	-3.6%	0.1%
Middle distillates	2403	2513	2627	2638	2543	2474	2456	2465	2467	2150	**2425**	12.8%	0.1%	2.6%
of which: diesel/gasoil	2120	2216	2325	2318	2218	2146	2126	2120	2114	1976	**2220**	12.3%	0.5%	2.4%
of which: jet/kerosene	282	296	302	320	325	329	330	344	353	174	**205**	17.7%	-3.2%	0.2%
Fuel oil	688	698	676	688	683	623	560	508	496	447	**533**	19.2%	-2.5%	0.6%
Others	1409	1420	1522	1473	1421	1318	1345	1314	1284	1216	**1182**	-2.8%	-1.7%	1.3%
of which: ethane and LPG	716	762	772	752	739	751	753	759	705	700	**723**	3.2%	0.1%	0.8%
Total S. & Cent. America	6066	6264	6491	6481	6302	6085	6057	5877	5791	5100	**5622**	10.2%	-0.8%	6.0%
of which: Brazil														
Light distillates	636	683	695	717	677	686	719	625	635	559	**612**	9.5%	-0.4%	0.7%
of which: gasoline	468	514	549	575	522	541	556	483	481	450	**495**	10.1%	0.6%	0.5%
of which: naphtha	168	169	147	142	155	145	163	142	154	109	**117**	7.1%	-3.6%	0.1%
Middle distillates	1021	1086	1134	1163	1045	984	985	990	1006	938	**1028**	9.7%	0.1%	1.1%
of which: diesel/gasoil	901	961	1009	1034	918	867	870	867	885	877	**953**	8.7%	0.6%	1.0%
of which: jet/kerosene	120	126	125	129	127	116	115	124	120	61	**76**	24.0%	-4.5%	0.1%
Fuel oil	126	126	139	161	149	112	110	90	91	94	**114**	20.9%	-1.0%	0.1%
Others	651	624	687	687	618	589	592	588	572	542	**497**	-8.4%	-2.7%	0.5%
of which: ethane and LPG	319	337	359	341	328	329	334	343	333	332	**328**	-1.2%	0.3%	0.3%
Total Brazil	2434	2519	2656	2729	2488	2370	2407	2293	2303	2134	**2252**	5.5%	-0.8%	2.4%
Europe														
Light distillates	3197	3047	2961	2889	2814	2830	2860	2845	2820	2567	**2790**	8.7%	-1.4%	3.0%
of which: gasoline	2201	2084	2015	1983	1932	1934	1939	2008	2038	1756	**1901**	8.2%	-1.5%	2.0%
of which: naphtha	996	963	947	906	881	897	921	837	782	810	**889**	9.8%	-1.1%	0.9%
Middle distillates	7511	7363	7447	7384	7741	7888	8118	8137	8193	6777	**7170**	5.8%	-0.5%	7.6%
of which: diesel/gasoil	6256	6137	6199	6105	6396	6498	6643	6598	6623	6036	**6318**	4.7%	0.1%	6.7%
of which: jet/kerosene	1255	1226	1247	1278	1344	1390	1475	1540	1570	741	**853**	15.1%	-3.8%	0.9%
Fuel oil	1280	1159	1033	960	915	953	967	978	942	779	**798**	2.4%	-4.6%	0.8%
Others	2940	2826	2790	2748	2852	2951	2983	2944	2876	2724	**2769**	1.7%	-0.6%	2.9%
of which: ethane and LPG	1216	1177	1293	1307	1319	1368	1403	1424	1384	1288	**1303**	1.2%	0.7%	1.4%
Total Europe	14927	14396	14232	13980	14321	14622	14928	14903	14831	12846	**13527**	5.3%	-1.0%	14.4%
of which: European Union														
Light distillates	2534	2412	2354	2314	2249	2264	2298	2304	2274	2097	**2290**	9.2%	-1.0%	2.4%
of which: gasoline	1602	1516	1470	1466	1441	1448	1463	1543	1574	1360	**1465**	7.7%	-0.9%	1.6%
of which: naphtha	931	896	884	848	808	817	835	762	700	737	**825**	11.9%	-1.2%	0.9%
Middle distillates	5785	5598	5627	5537	5770	5872	6029	6049	6116	5106	**5400**	5.8%	-0.7%	5.7%
of which: diesel/gasoil	4947	4782	4809	4713	4913	4973	5068	5036	5080	4637	**4837**	4.3%	-0.2%	5.1%
of which: jet/kerosene	837	816	817	824	858	898	961	1012	1036	468	**563**	20.3%	-3.9%	0.6%
Fuel oil	1109	1005	886	821	785	822	825	851	825	689	**704**	2.3%	-4.4%	0.7%
Others	2209	2141	2088	2076	2109	2132	2167	2141	2092	1961	**2027**	3.3%	-0.9%	2.2%
of which: ethane and LPG	830	832	927	934	925	940	972	990	959	888	**920**	3.6%	1.0%	1.0%
Total European Union	11637	11157	10955	10749	10913	11090	11319	11345	11307	9853	**10421**	5.8%	-1.1%	11.1%
CIS														
Light distillates	1209	1241	1214	1223	1203	1202	1204	1233	1214	1125	**1216**	8.1%	0.1%	1.3%
of which: gasoline	1000	1050	1075	1087	1058	1060	1054	1064	1046	958	**1048**	9.3%	0.5%	1.1%
of which: naphtha	209	192	139	135	144	142	151	169	167	167	**169**	1.3%	-2.1%	0.2%
Middle distillates	1288	1306	1406	1426	1356	1373	1432	1460	1495	1362	**1476**	8.4%	1.4%	1.6%
of which: diesel/gasoil	976	988	1095	1136	1087	1029	1049	1106	1152	1067	**1152**	8.0%	1.7%	1.2%
of which: jet/kerosene	312	318	311	289	269	344	383	354	343	295	**324**	10.0%	0.4%	0.3%
Fuel oil	359	357	398	467	380	401	340	357	376	322	**302**	-6.3%	-1.7%	0.3%
Others	1064	1120	1003	1053	1090	1164	1176	1209	1246	1260	**1313**	4.2%	2.1%	1.4%
of which: ethane and LPG	453	480	614	634	688	736	741	760	792	812	**858**	5.7%	6.6%	0.9%
Total CIS	3920	4025	4020	4168	4029	4140	4152	4259	4331	4069	**4307**	5.9%	0.9%	4.6%
Middle East														
Light distillates	1727	1816	1884	1965	1994	2027	2143	2154	2207	1877	**2069**	10.2%	1.8%	2.2%
of which: gasoline	1417	1495	1587	1613	1639	1678	1790	1831	1833	1498	**1656**	10.6%	1.6%	1.8%
of which: naphtha	311	321	297	352	355	349	352	323	375	379	**412**	8.8%	2.9%	0.4%
Middle distillates	2406	2494	2637	2556	2477	2396	2293	2244	2353	2016	**2097**	4.0%	-1.4%	2.2%
of which: diesel/gasoil	1978	2051	2130	2067	1902	1795	1719	1683	1778	1694	**1709**	0.9%	-1.5%	1.8%
of which: jet/kerosene	428	442	507	490	575	601	574	562	574	322	**388**	20.3%	-1.0%	0.4%
Fuel oil	1941	1993	2042	2129	2095	2119	2098	2117	1941	1926	**1975**	2.6%	0.2%	2.1%
Others	2037	2148	2117	2239	2264	2463	2544	2667	2503	2499	**2500**	♦	2.1%	2.7%
of which: ethane and LPG	1737	1842	1805	1893	1907	2042	2107	2138	2061	2051	**2088**	1.8%	1.9%	2.2%
Total Middle East	8112	8451	8681	8889	8829	9005	9078	9182	9004	8318	**8640**	3.9%	0.6%	9.2%
Africa														
Light distillates	813	876	894	910	988	1059	1097	1202	1222	1113	**1230**	10.5%	4.2%	1.3%
of which: gasoline	806	873	890	904	984	1054	1091	1195	1215	1107	**1223**	10.5%	4.3%	1.3%
of which: naphtha	7	3	4	6	5	6	7	7	7	6	**7**	8.4%	-0.4%	♦
Middle distillates	1658	1725	1827	1864	1906	1853	1891	1900	1918	1679	**1836**	9.3%	1.0%	2.0%
of which: diesel/gasoil	1350	1415	1511	1564	1629	1591	1622	1634	1659	1520	**1660**	9.2%	2.1%	1.8%
of which: jet/kerosene	308	310	316	300	277	262	269	267	259	159	**175**	10.4%	-5.5%	0.2%
Fuel oil	381	424	429	427	408	403	380	320	281	203	**224**	10.2%	-5.2%	0.2%
Others	576	587	603	587	590	595	602	608	625	614	**633**	3.1%	0.9%	0.7%
of which: ethane and LPG	397	402	412	403	408	417	436	446	454	455	**469**	3.1%	1.7%	0.5%
Total Africa	3428	3612	3752	3788	3891	3910	3970	4030	4046	3608	**3922**	8.7%	1.4%	4.2%

♦Less than 0.05%.
Table continues on next page.

Oil: Regional consumption – by product group (continued)

Thousand barrels daily	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Growth rate per annum 2021	Growth rate per annum 2011-21	Share 2021
Asia Pacific														
Light distillates	8366	8800	9313	9575	10383	10690	11043	11347	11616	11021	**11886**	7.8%	3.6%	12.6%
of which: gasoline	4843	5110	5489	5601	6155	6399	6591	6850	7093	6487	**6898**	6.3%	3.6%	7.3%
of which: naphtha	3523	3690	3823	3974	4228	4291	4451	4497	4523	4535	**4988**	10.0%	3.5%	5.3%
Middle distillates	10338	10788	10950	11026	11308	11449	11815	12169	12418	10742	**11096**	3.3%	0.7%	11.8%
of which: diesel/gasoil	8116	8533	8627	8658	8854	8843	9083	9324	9546	8826	**9233**	4.6%	1.3%	9.8%
of which: jet/kerosene	2222	2256	2323	2368	2454	2606	2732	2845	2872	1916	**1863**	-2.8%	-1.7%	2.0%
Fuel oil	3090	3215	2961	2796	2779	2818	2702	2540	2320	2295	**2456**	7.0%	-2.3%	2.6%
Others	6727	6905	7050	7399	7740	8453	9026	9430	9777	10059	**10368**	3.1%	4.4%	11.0%
of which: ethane and LPG	2988	3065	3159	3348	3469	3857	4117	4344	4425	4314	**4558**	5.6%	4.3%	4.8%
Total Asia Pacific	28522	29709	30273	30795	32211	33410	34586	35486	36131	34117	**35806**	4.9%	2.3%	38.1%
of which: China														
Light distillates	2549	2731	3057	3269	3716	3889	4060	4324	4571	4476	**4976**	11.2%	6.9%	5.3%
of which: gasoline	1738	1863	2143	2236	2601	2699	2791	2978	3125	2921	**3222**	10.3%	6.4%	3.4%
of which: naphtha	811	868	914	1032	1115	1190	1269	1346	1446	1555	**1754**	12.8%	8.0%	1.9%
Middle distillates	3655	3947	4049	4094	4197	4142	4257	4421	4642	4283	**4453**	4.0%	2.0%	4.7%
of which: diesel/gasoil	3196	3453	3503	3506	3538	3403	3440	3515	3674	3499	**3669**	4.9%	1.4%	3.9%
of which: jet/kerosene	459	495	546	588	659	739	817	906	967	784	**783**	-0.1%	5.5%	0.8%
Fuel oil	588	560	564	584	591	558	530	532	574	602	**668**	11.0%	1.3%	0.7%
Others	2839	2823	2894	3071	3386	3708	4157	4366	4534	5046	**5345**	5.9%	6.5%	5.7%
of which: ethane and LPG	803	798	871	998	1120	1310	1456	1531	1539	1507	**1712**	13.6%	7.9%	1.8%
Total China	9630	10061	10563	11018	11890	12297	13003	13642	14321	14408	**15442**	7.2%	4.8%	16.4%
of which: India														
Light distillates	545	583	603	622	726	778	777	813	848	804	**871**	8.3%	4.8%	0.9%
of which: gasoline	302	321	353	382	441	490	539	575	623	559	**627**	12.0%	7.6%	0.7%
of which: naphtha	243	262	250	240	285	288	238	238	225	245	**244**	-0.3%	◆	0.3%
Middle distillates	1599	1684	1683	1692	1772	1846	1876	1955	1964	1609	**1726**	7.3%	0.8%	1.8%
of which: diesel/gasoil	1299	1404	1408	1416	1491	1571	1627	1701	1728	1477	**1585**	7.3%	2.0%	1.7%
of which: jet/kerosene	300	279	274	276	280	274	249	254	235	132	**140**	6.4%	-7.3%	0.1%
Fuel oil	178	147	117	107	113	136	122	120	114	104	**110**	5.8%	-4.7%	0.1%
Others	1152	1260	1314	1411	1536	1785	1949	2086	2225	2184	**2172**	-0.6%	6.5%	2.3%
of which: ethane and LPG	534	548	558	613	661	750	858	971	1047	1065	**1088**	2.2%	7.4%	1.2%
Total India	3475	3674	3717	3832	4147	4544	4724	4974	5150	4701	**4878**	3.8%	3.5%	5.2%
of which: Japan														
Light distillates	1605	1589	1611	1551	1584	1537	1553	1484	1471	1342	**1382**	2.9%	-1.5%	1.5%
of which: gasoline	973	975	944	914	904	894	879	864	840	770	**764**	-0.8%	-2.4%	0.8%
of which: naphtha	632	614	666	637	680	642	675	621	631	572	**618**	8.0%	-0.2%	0.7%
Middle distillates	1342	1358	1345	1321	1286	1293	1300	1281	1271	1093	**1097**	0.4%	-2.0%	1.2%
of which: diesel/gasoil	816	821	817	803	786	786	782	782	771	722	**727**	0.8%	-1.1%	0.8%
of which: jet/kerosene	526	537	528	517	500	507	518	500	500	372	**370**	-0.5%	-3.5%	0.4%
Fuel oil	575	826	649	535	431	365	278	260	199	182	**216**	18.6%	-9.3%	0.2%
Others	887	903	895	876	816	788	817	790	751	650	**646**	-0.7%	-3.1%	0.7%
of which: ethane and LPG	496	536	508	492	443	419	424	402	354	333	**339**	1.8%	-3.7%	0.4%
Total Japan	4410	4676	4499	4283	4116	3983	3949	3815	3692	3269	**3341**	2.2%	-2.7%	3.6%
World														
Light distillates	26677	27103	27802	28160	29174	29775	30273	30613	30786	27683	**30068**	8.6%	1.2%	32.0%
of which: gasoline	21082	21417	22053	22280	23057	23608	23935	24338	24502	21431	**23238**	8.4%	1.0%	24.7%
of which: naphtha	5595	5685	5750	5879	6117	6167	6338	6274	6284	6252	**6829**	9.2%	2.0%	7.3%
Middle distillates	32213	32559	33322	33582	34058	34042	34774	35454	35817	30431	**32272**	6.0%	◆	34.3%
of which: diesel/gasoil	25802	26129	26686	26860	27047	26668	27091	27579	27846	25618	**26936**	5.1%	0.4%	28.6%
of which: jet/kerosene	6411	6430	6636	6721	7011	7374	7682	7875	7971	4813	**5336**	10.9%	-1.8%	5.7%
Fuel oil	8466	8503	8120	7917	7684	7789	7565	7291	6749	6272	**6711**	7.0%	-2.3%	7.1%
Others	20077	20382	20653	20934	21548	22563	23312	24133	24396	24360	**25038**	2.8%	2.2%	26.6%
of which: ethane and LPG	10687	10916	11420	11630	11892	12600	13010	13660	13642	13493	**13988**	3.7%	2.7%	14.9%
Total World	**87433**	**88547**	**89897**	**90592**	**92464**	**94169**	**95924**	**97490**	**97747**	**88746**	**94088**	**6.0%**	**0.7%**	**100.0%**
OECD														
Light distillates	16151	15978	16114	16084	16345	16533	16606	16520	16386	14356	**15507**	8.0%	-0.4%	16.5%
of which: gasoline	13155	12980	13045	13074	13293	13474	13453	13518	13491	11614	**12514**	7.7%	-0.5%	13.3%
of which: naphtha	2997	2998	3069	3010	3051	3059	3153	3002	2895	2742	**2993**	9.2%	◆	3.2%
Middle distillates	16569	16267	16418	16612	17039	17117	17546	17885	17827	14740	**15644**	6.1%	-0.6%	16.6%
of which: diesel/gasoil	12824	12554	12637	12760	13030	12954	13201	13433	13310	12164	**12642**	3.9%	-0.1%	13.4%
of which: jet/kerosene	3745	3714	3782	3852	4009	4163	4345	4451	4517	2576	**3002**	16.5%	-2.2%	3.2%
Fuel oil	2771	2852	2455	2100	1931	1979	1896	1839	1624	1371	**1550**	13.0%	-5.6%	1.6%
Others	9664	9619	9758	9521	9711	9893	9905	10176	10233	9892	**10239**	3.5%	0.6%	10.9%
of which: ethane and LPG	5223	5236	5494	5400	5426	5563	5610	5946	5913	5854	**5998**	2.4%	1.4%	6.4%
Total OECD	45155	44716	44746	44317	45026	45522	45952	46420	46070	40360	**42941**	6.4%	-0.5%	45.6%
Non-OECD														
Light distillates	10526	11124	11688	12075	12829	13242	13667	14092	14400	13326	**14560**	9.3%	3.3%	15.5%
of which: gasoline	7927	8437	9007	9206	9763	10134	10481	10820	11011	9816	**10725**	9.3%	3.1%	11.4%
of which: naphtha	2599	2687	2681	2869	3066	3108	3186	3272	3389	3510	**3836**	9.3%	4.0%	4.1%
Middle distillates	15644	16292	16904	16970	17019	16925	17228	17569	17990	15691	**16628**	6.0%	0.6%	17.7%
of which: diesel/gasoil	12978	13575	14049	14101	14017	13714	13890	14145	14536	13454	**14294**	6.2%	1.0%	15.2%
of which: jet/kerosene	2666	2717	2854	2869	3002	3211	3338	3424	3454	2237	**2334**	4.3%	-1.3%	2.5%
Fuel oil	5695	5652	5665	5818	5752	5809	5669	5452	5125	4900	**5161**	5.3%	-1.0%	5.5%
Others	10413	10763	10895	11412	11838	12670	13407	13957	14163	14468	**14798**	2.3%	3.6%	15.7%
of which: ethane and LPG	5464	5680	5926	6230	6466	7037	7400	7714	7729	7639	**7990**	4.6%	3.9%	8.5%
Total Non-OECD	42278	43831	45151	46275	47439	48647	49972	51070	51677	48386	**51147**	5.7%	1.9%	54.4%

◆Less than 0.05%.
Notes: 'Light distillates' consists of aviation and motor gasolines and light distillate feedstock (LDF).
'Middle distillates' consists of jet and heating kerosenes, and gas and diesel oils (including marine bunkers).
'Fuel oil' includes marine bunkers and crude oil used directly for fuel.
'Others' consists of refinery gas, solvents, petroleum coke, lubricants, bitumen, wax, other refined products and refinery fuel and loss.
Annual changes and shares of total are calculated using thousand barrels daily figures.
Growth rates are adjusted for leap years.

Spot crude prices

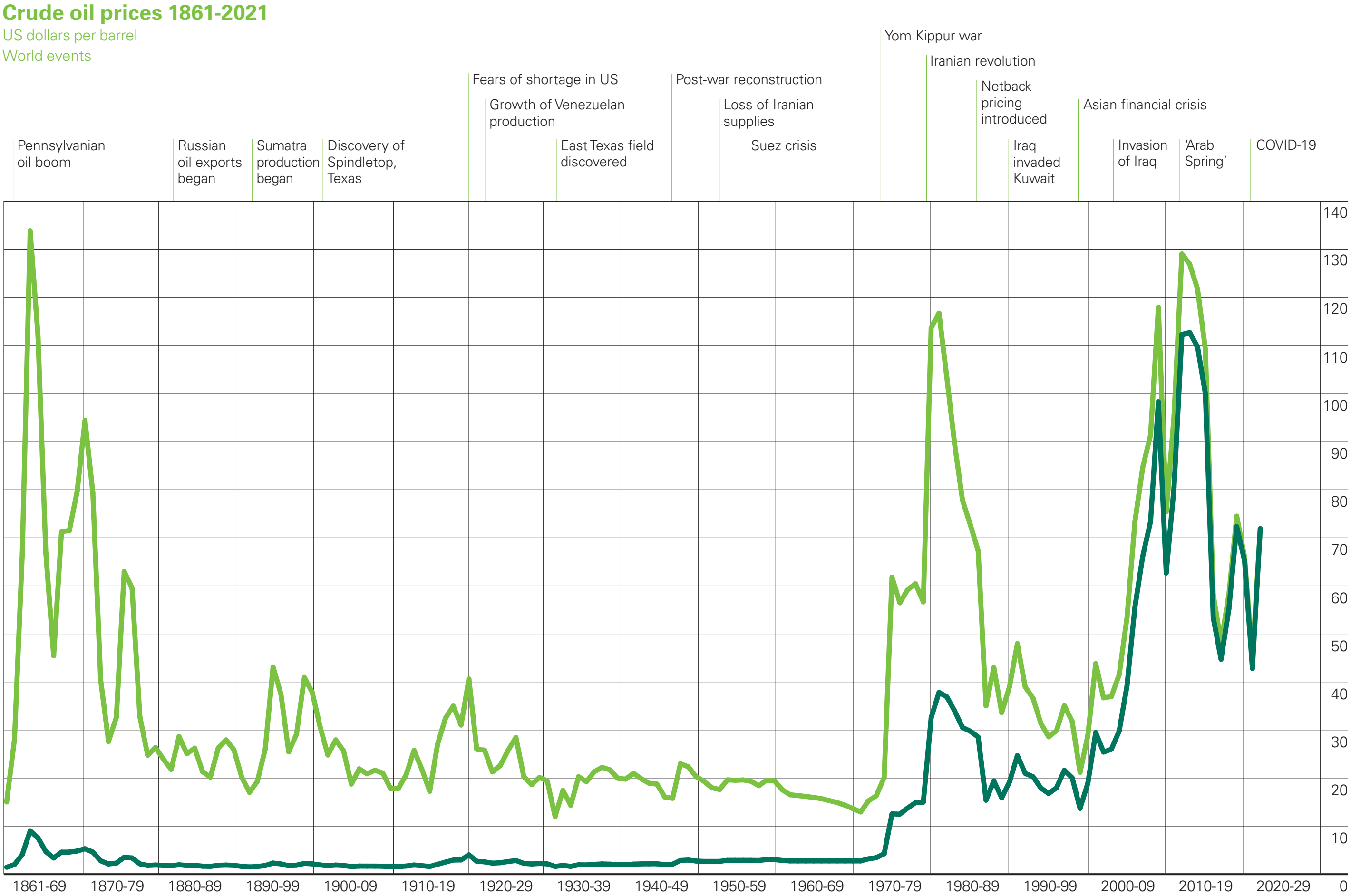
US dollars per barrel	Dubai $/bbl*	Brent $/bbl†	Nigerian Forcados $/bbl	West Texas Intermediate $/bbl‡
1985	27.53	27.56	27.75	27.98
1986	13.10	14.43	14.46	15.05
1987	16.95	18.44	18.39	19.19
1988	13.18	14.92	15.00	15.98
1989	15.65	18.23	18.30	19.67
1990	20.26	23.73	23.85	24.46
1991	16.63	20.00	20.11	21.53
1992	17.17	19.32	19.61	20.57
1993	14.93	16.97	17.41	18.45
1994	14.74	15.82	16.25	17.21
1995	16.10	17.02	17.26	18.42
1996	18.52	20.67	21.16	22.16
1997	18.23	19.09	19.33	20.61
1998	12.21	12.72	12.62	14.39
1999	17.25	17.97	18.00	19.31
2000	26.20	28.50	28.42	30.37
2001	22.81	24.44	24.23	25.93
2002	23.74	25.02	25.04	26.16
2003	26.78	28.83	28.66	31.06
2004	33.64	38.27	38.13	41.49
2005	49.35	54.52	55.69	56.59
2006	61.50	65.14	67.07	66.04
2007	68.19	72.39	74.48	72.20
2008	94.34	97.26	101.43	100.06
2009	61.39	61.67	63.35	61.92
2010	78.06	79.50	81.05	79.45
2011	106.18	111.26	113.65	95.04
2012	109.08	111.67	114.21	94.13
2013	105.47	108.66	111.95	97.99
2014	97.07	98.95	101.35	93.28
2015	51.20	52.39	54.41	48.71
2016	41.19	43.73	44.54	43.34
2017	53.13	54.19	54.31	50.79
2018	69.51	71.31	72.47	65.20
2019	63.43	64.21	64.95	57.03
2020	42.41	41.84	42.31	39.25
2021	68.91	70.91	69.76	68.10

*1985 Arabian Light, 1986-2021 Dubai dated.
†1985-2021 Brent dated.
‡1985-2021 Spot WTI (Cushing) prices.

Source: S&P Global Platts, © 2021, S&P Global Inc.

Crude oil prices 1861-2021

US dollars per barrel
World events



■ $ 2021 (deflated using the Consumer Price Index for the US)
■ $ money of the day

1861-1944 US average.
1945-1983 Arabian Light posted at Ras Tanura.
1984-2021 Brent dated.
$2021 (deflated using the Consumer Price Index for the US).

Oil: Refinery throughput

Thousand barrels daily*	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Growth rate per annum 2021	Growth rate per annum 2011-21	Share 2021
Canada	1681	1753	1719	1615	1640	1594	1757	1653	1822	1585	**1653**	4.3%	-0.2%	2.1%
Mexico	1166	1199	1223	1155	1064	933	767	612	592	591	**712**	20.6%	-4.8%	0.9%
US	14806	14999	15312	15848	16188	16187	16590	16969	16563	14212	**15148**	6.6%	0.2%	19.1%
Total North America	17653	17951	18254	18618	18892	18714	19114	19234	18977	16387	**17513**	6.9%	-0.1%	22.1%
Argentina	516	530	527	526	536	511	500	470	476	417	**472**	13.1%	-0.9%	0.6%
Brazil	1813	1889	2035	2085	1972	1812	1741	1733	1751	1769	**1818**	2.8%	♦	2.3%
Chile	173	164	174	174	165	163	172	172	186	172	**177**	3.2%	0.3%	0.2%
Colombia	306	305	284	247	244	339	355	383	384	330	**364**	10.3%	1.7%	0.5%
Curacao	–	165	170	189	178	156	84	29	4	–	**–**	–	–	–
Ecuador	156	152	141	125	121	150	156	159	142	116	**146**	25.7%	-0.6%	0.2%
Netherlands Antilles	164	–	–	–	–	–	–	–	–	–	**–**	–	-100.0%	0.0%
Peru	193	190	186	188	188	194	213	209	192	105	**138**	31.0%	-3.3%	0.2%
Trinidad & Tobago	137	107	132	105	125	148	131	99	–	–	**–**	–	-100.0%	0.0%
Venezuela	991	936	952	920	863	654	544	306	135	123	**169**	36.8%	-16.2%	0.2%
Other S. & Cent. America	704	326	286	277	275	231	197	246	238	245	**281**	14.7%	-8.8%	0.4%
Total S. & Cent. America	5153	4764	4887	4836	4667	4359	4093	3805	3509	3277	**3565**	8.8%	-3.6%	4.5%
Austria	168	170	174	173	179	164	162	180	183	162	**166**	2.5%	-0.1%	0.2%
Belgium	598	634	555	645	644	640	685	663	693	545	**577**	6.0%	-0.4%	0.7%
Bulgaria	102	118	113	104	121	125	136	118	137	97	**84**	-13.5%	-1.9%	0.1%
Czech Republic	143	145	134	151	145	109	158	151	158	122	**143**	17.5%	♦	0.2%
Denmark	137	153	144	139	147	140	151	152	154	142	**153**	7.5%	1.1%	0.2%
Finland	225	215	227	225	197	226	226	233	240	219	**159**	-27.5%	-3.4%	0.2%
France	1313	1138	1117	1096	1152	1122	1149	1085	978	665	**686**	3.2%	-6.3%	0.9%
Germany	1876	1901	1857	1833	1875	1887	1870	1775	1763	1685	**1691**	0.4%	-1.0%	2.1%
Greece	331	410	399	416	436	464	483	489	462	445	**474**	6.4%	3.6%	0.6%
Hungary	132	122	120	131	130	133	131	141	137	135	**134**	♦	0.2%	0.2%
Ireland	59	61	57	55	68	64	64	61	51	57	**61**	7.0%	0.3%	0.1%
Italy	1570	1475	1259	1198	1347	1293	1399	1346	1355	1105	**1223**	10.7%	-2.5%	1.5%
Lithuania	189	181	192	160	170	187	197	195	191	167	**170**	1.6%	-1.1%	0.2%
Netherlands	1115	1110	1065	1090	1157	1172	1180	1192	1217	1134	**1195**	5.3%	0.7%	1.5%
Norway	289	287	292	274	293	230	281	305	265	237	**235**	-0.9%	-2.0%	0.3%
Poland	482	505	488	486	532	517	508	540	546	516	**497**	-3.6%	0.3%	0.6%
Portugal	206	221	239	217	278	279	284	252	223	218	**189**	-13.4%	-0.9%	0.2%
Romania	194	182	189	194	208	228	225	232	244	206	**193**	-6.4%	-0.1%	0.2%
Slovakia	120	108	116	105	119	115	112	109	103	112	**111**	-0.9%	-0.8%	0.1%
Spain	1051	1186	1168	1185	1306	1302	1326	1363	1318	1105	**1143**	3.5%	0.8%	1.4%
Sweden	374	417	332	380	401	395	392	406	337	349	**366**	5.1%	-0.2%	0.5%
Switzerland	87	68	97	98	56	59	57	61	55	56	**46**	-18.4%	-6.2%	0.1%
Turkey	394	398	421	406	526	531	542	472	673	655	**691**	5.5%	5.8%	0.9%
Ukraine	206	108	85	69	64	64	77	59	64	68	**73**	6.9%	-9.9%	0.1%
United Kingdom	1433	1348	1197	1125	1118	1071	1073	1041	1044	880	**879**	-0.2%	-4.8%	1.1%
Other Europe	158	132	136	128	141	148	165	166	123	110	**114**	3.7%	-3.2%	0.1%
Total Europe	12953	12793	12173	12082	12810	12666	13032	12787	12713	11191	**11453**	2.3%	-1.2%	14.5%
Azerbaijan	127	124	132	135	130	120	118	122	124	118	**121**	2.8%	-0.5%	0.2%
Belarus	411	434	425	448	462	372	364	366	359	326	**358**	9.7%	-1.4%	0.5%
Kazakhstan	326	331	341	361	342	339	355	374	392	367	**391**	6.4%	1.8%	0.5%
Russian Federation	5185	5438	5636	5926	5773	5715	5703	5864	5824	5504	**5723**	4.0%	1.0%	7.2%
Turkmenistan	164	156	146	136	127	118	125	117	122	118	**113**	-4.3%	-3.7%	0.1%
Uzbekistan	69	62	61	50	57	57	58	70	60	57	**46**	-18.5%	-3.9%	0.1%
Other CIS	3	2	2	4	7	8	9	11	7	4	**7**	58.8%	10.0%	♦
Total CIS	6286	6548	6742	7060	6899	6730	6732	6924	6889	6494	**6759**	4.1%	0.7%	8.5%
Bahrain	259	263	264	257	266	258	262	260	264	222	**228**	2.7%	-1.3%	0.3%
Iran	1874	1933	2000	1941	1868	1875	1897	2087	2101	2193	**2344**	6.9%	2.3%	3.0%
Iraq	543	579	598	487	409	440	527	596	633	536	**616**	15.0%	1.3%	0.8%
Israel	218	220	221	226	232	213	223	238	242	243	**242**	-0.2%	1.0%	0.3%
Kuwait	852	916	873	879	905	841	686	679	663	539	**643**	19.1%	-2.8%	0.8%
Oman	201	193	187	180	190	178	232	304	257	221	**234**	6.0%	1.6%	0.3%
Qatar	278	292	270	261	253	280	379	397	396	366	**381**	4.0%	3.2%	0.5%
Saudi Arabia	1884	1953	1876	2201	2447	2753	2802	2770	2649	2397	**2766**	15.4%	3.9%	3.5%
United Arab Emirates	635	638	650	643	1098	1078	1119	1096	1037	936	**939**	0.4%	4.0%	1.2%
Other Middle East	349	268	238	230	181	144	161	153	165	161	**157**	-2.6%	-7.7%	0.2%
Total Middle East	7092	7254	7177	7306	7847	8059	8287	8579	8406	7814	**8550**	9.4%	1.9%	10.8%
Algeria	520	478	492	615	591	584	573	601	569	585	**588**	0.6%	1.2%	0.7%
Egypt	523	534	514	530	530	509	508	519	562	602	**591**	-1.8%	1.2%	0.7%
Morocco	103	111	111	105	53	–	–	–	–	–	**–**	–	-100.0%	–
Nigeria	108	92	97	64	22	62	81	35	7	0	**3**	743.8%	-30.7%	♦
South Africa	393	413	422	440	453	474	447	455	406	282	**196**	-30.4%	-6.7%	0.2%
Other Africa	512	586	594	444	453	459	429	446	442	324	**424**	30.7%	-1.9%	0.5%
Total Africa	2160	2214	2230	2197	2101	2087	2038	2056	1987	1793	**1801**	0.5%	-1.8%	2.3%
Australia	627	600	588	538	427	433	419	474	465	388	**286**	-26.3%	-7.5%	0.4%
Bangladesh	27	24	27	24	25	23	28	25	28	22	**31**	43.1%	1.4%	♦
China	8686	9199	9599	10165	10824	11304	11844	12574	13433	13824	**14461**	4.6%	5.2%	18.3%
India	4085	4302	4462	4475	4561	4930	5010	5154	5119	4493	**4792**	6.6%	1.6%	6.0%
Indonesia	880	820	822	848	836	885	885	916	918	826	**824**	-0.2%	-0.6%	1.0%
Japan	3410	3400	3453	3289	3258	3280	3214	3059	3046	2492	**2488**	-0.2%	-3.1%	3.1%
Malaysia	516	575	557	552	514	574	570	566	586	491	**571**	16.4%	1.0%	0.7%
New Zealand	108	109	105	101	109	107	108	103	110	76	**69**	-8.3%	-4.3%	0.1%
Pakistan	193	192	223	232	257	242	261	275	243	210	**240**	14.4%	2.2%	0.3%
Philippines	190	170	158	168	212	216	211	237	180	106	**79**	-25.8%	-8.4%	0.1%
Singapore	1035	1020	936	839	901	929	994	974	930	798	**816**	2.3%	-2.3%	1.0%
South Korea	2533	2582	2484	2516	2784	2928	3061	3031	2922	2679	**2634**	-1.7%	0.4%	3.3%
Taiwan	809	897	847	850	838	861	848	889	890	726	**770**	6.1%	-0.5%	1.0%
Thailand	929	972	1017	961	1066	1022	1064	1093	990	982	**976**	-0.6%	0.5%	1.2%
Vietnam	137	126	148	129	155	155	141	221	276	276	**298**	8.1%	8.1%	0.4%
Other Asia Pacific	100	89	98	95	87	103	100	97	130	247	**250**	1.3%	9.7%	0.3%
Total Asia Pacific	24262	25076	25524	25782	26855	27993	28759	29689	30267	28635	**29587**	3.3%	2.0%	37.3%
Total World	**75560**	**76600**	**76988**	**77881**	**80071**	**80608**	**82056**	**83073**	**82748**	**75591**	**79229**	**4.8%**	**0.5%**	**100.0%**
of which: OECD	37321	37583	37212	37297	38387	38279	39096	38905	38476	33476	**34764**	3.8%	-0.7%	43.9%
Non-OECD	38239	39017	39776	40584	41684	42329	42960	44169	44272	42115	**44465**	5.6%	1.5%	56.1%
European Union	10452	10513	10005	10029	10670	10627	10907	10755	10542	9225	**9453**	2.5%	-1.0%	11.9%

*Atmospheric distillation capacity on a calendar-day basis.
♦Less than 0.05%.

Source: includes data from ICIS.

Oil: Refining capacity

Thousand barrels daily*	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Growth rate per annum 2021	Growth rate per annum 2011-21	Share 2021
Canada	2005	2015	1929	1929	1931	1934	1970	1939	2054	2065	**1954**	-5.4%	-0.3%	1.9%
Mexico	1606	1606	1606	1522	1522	1522	1546	1558	1558	1558	**1558**	–	-0.3%	1.5%
US	17367	17823	17925	17967	18317	18617	18598	18808	18974	18143	**17941**	-1.1%	0.3%	17.6%
Total North America	20977	21443	21460	21418	21770	22073	22113	22305	22586	21766	**21453**	-1.4%	0.2%	21.1%
Argentina	625	657	657	657	657	657	657	580	580	580	**580**	–	-0.7%	0.6%
Brazil	2014	2004	2097	2238	2281	2289	2285	2285	2290	2290	**2303**	0.5%	1.3%	2.3%
Chile	242	242	242	242	242	242	242	242	242	242	**242**	–	–	0.2%
Colombia	336	336	336	336	421	421	421	421	421	421	**421**	–	2.3%	0.4%
Curacao	–	320	320	320	320	320	320	320	320	320	**320**	–	–	0.3%
Ecuador	175	175	175	175	175	175	175	175	175	175	**175**	–	–	0.2%
Netherlands Antilles	320	–	–	–	–	–	–	–	–	–	**–**	–	-100.0%	–
Peru	252	252	253	253	253	253	253	253	253	253	**276**	9.1%	0.9%	0.3%
Trinidad & Tobago	170	175	175	175	175	175	175	175	175	175	**175**	–	0.3%	0.2%
Venezuela	1303	1303	1303	1303	1303	1303	1303	1303	1303	1303	**1303**	–	–	1.3%
Other S. & Cent. America	1046	490	655	670	678	678	678	678	678	858	**583**	-32.1%	-5.7%	0.6%
Total S. & Cent. America	6483	5954	6213	6369	6505	6513	6509	6432	6437	6617	**6378**	-3.6%	-0.2%	6.3%
Austria	193	193	193	193	193	193	193	193	193	193	**193**	–	–	0.2%
Belgium	788	753	776	776	776	776	776	776	776	776	**645**	-16.9%	-2.0%	0.6%
Bulgaria	195	195	195	195	195	195	195	195	195	195	**195**	–	–	0.2%
Czech Republic	193	175	175	175	175	175	175	175	175	175	**175**	–	-1.0%	0.2%
Denmark	181	181	181	180	180	180	181	181	181	181	**181**	–	◆	0.2%
Finland	261	261	261	261	261	261	261	261	261	261	**204**	-22.0%	-2.5%	0.2%
France	1610	1513	1375	1375	1375	1245	1245	1245	1245	1245	**1140**	-8.4%	-3.4%	1.1%
Germany	2077	2097	2061	2077	2049	2051	2069	2062	2062	2062	**2121**	2.9%	0.2%	2.1%
Greece	495	498	498	498	528	528	528	528	528	528	**528**	–	0.6%	0.5%
Hungary	165	165	165	165	165	165	165	165	165	165	**165**	–	–	0.2%
Ireland	75	75	75	75	75	75	75	75	75	75	**75**	–	–	0.1%
Italy	2276	2098	1861	1900	1900	1900	1900	1900	1900	1900	**1900**	–	-1.8%	1.9%
Lithuania	241	241	241	241	241	241	241	241	241	241	**241**	–	–	0.2%
Netherlands	1276	1279	1279	1279	1298	1298	1299	1299	1291	1244	**1238**	-0.5%	-0.3%	1.2%
Norway	329	342	342	342	342	342	342	342	342	342	**226**	-33.9%	-3.7%	0.2%
Poland	580	582	582	582	581	581	568	581	581	581	**581**	–	◆	0.6%
Portugal	306	330	330	330	330	330	330	330	330	330	**225**	-31.8%	-3.0%	0.2%
Romania	229	214	235	228	239	256	247	254	252	252	**252**	–	1.0%	0.2%
Slovakia	122	122	122	122	122	122	122	122	122	122	**122**	–	–	0.1%
Spain	1542	1546	1546	1546	1562	1562	1562	1564	1586	1586	**1586**	–	0.3%	1.6%
Sweden	454	454	454	454	454	454	454	454	454	454	**454**	–	–	0.4%
Switzerland	140	106	140	140	68	68	68	68	68	68	**68**	–	-7.0%	0.1%
Turkey	596	596	596	596	596	596	596	818	822	822	**822**	–	3.3%	0.8%
Ukraine	700	314	272	258	250	250	250	250	250	250	**250**	–	-9.8%	0.2%
United Kingdom	1787	1526	1498	1337	1337	1227	1227	1227	1227	1251	**1197**	-4.3%	-3.9%	1.2%
Other Europe	432	460	410	410	410	410	393	355	355	311	**311**	◆	-3.2%	0.3%
Total Europe	17244	16315	15863	15735	15703	15482	15460	15660	15678	15609	**15094**	-3.3%	-1.3%	14.8%
Azerbaijan	325	325	325	325	325	325	205	120	120	120	**135**	12.5%	-8.4%	0.1%
Belarus	460	460	460	460	460	460	490	520	520	520	**520**	–	1.2%	0.5%
Kazakhstan	330	330	350	350	350	350	360	390	400	400	**400**	–	1.9%	0.4%
Russian Federation	5673	5767	6229	6366	6472	6543	6545	6551	6676	6736	**6861**	1.9%	1.9%	6.7%
Turkmenistan	251	251	251	251	271	271	271	271	271	271	**271**	–	0.8%	0.3%
Uzbekistan	232	232	232	232	232	232	232	232	232	232	**232**	–	–	0.2%
Other CIS	13	16	18	35	44	45	48	48	51	61	**73**	19.1%	18.6%	0.1%
Total CIS	7284	7381	7865	8019	8154	8226	8151	8132	8270	8340	**8492**	1.8%	1.5%	8.3%
Bahrain	260	260	260	260	260	260	260	260	260	260	**260**	–	–	0.3%
Iran	1950	2042	2075	2075	2075	2075	2220	2330	2495	2475	**2508**	1.3%	2.5%	2.5%
Iraq	935	971	917	791	763	779	779	849	919	919	**919**	–	-0.2%	0.9%
Israel	292	292	294	301	301	301	301	301	301	301	**301**	–	0.3%	0.3%
Kuwait	936	936	936	936	936	936	736	736	736	800	**1430**	78.8%	4.3%	1.4%
Oman	222	222	222	222	222	222	304	304	304	304	**304**	–	3.2%	0.3%
Qatar	283	283	283	283	283	429	429	429	429	429	**429**	–	4.2%	0.4%
Saudi Arabia	2107	2107	2507	2899	2899	2901	2826	2835	2905	2905	**2905**	–	3.3%	2.9%
United Arab Emirates	707	712	712	728	1149	1149	1229	1229	1307	1331	**1246**	-6.4%	5.8%	1.2%
Other Middle East	496	496	496	496	496	496	496	496	496	496	**496**	–	–	0.5%
Total Middle East	8188	8321	8702	8991	9384	9548	9580	9769	10152	10220	**10798**	5.7%	2.8%	10.6%
Algeria	652	652	647	651	651	651	657	657	657	657	**657**	–	0.1%	0.6%
Egypt	810	810	810	810	810	810	810	795	795	795	**795**	–	-0.2%	0.8%
Morocco	131	201	201	201	201	201	201	201	201	200	**200**	–	4.4%	0.2%
Nigeria	446	446	446	449	449	449	449	454	460	460	**475**	3.3%	0.6%	0.5%
South Africa	520	520	520	520	520	520	520	520	520	520	**395**	-24.0%	-2.7%	0.4%
Other Africa	1014	1014	724	726	726	726	706	687	687	687	**697**	1.5%	-3.7%	0.7%
Total Africa	3573	3643	3347	3357	3357	3357	3343	3314	3320	3319	**3219**	-3.0%	-1.0%	3.2%
Australia	742	663	662	536	443	452	454	454	455	456	**235**	-48.5%	-10.9%	0.2%
Bangladesh	39	40	43	43	43	43	43	43	43	48	**43**	-10.4%	1.0%	◆
China	13015	13681	14503	15253	15024	14895	15231	15655	16199	16691	**16990**	1.8%	2.7%	16.7%
India	3795	4279	4319	4319	4307	4620	4699	4972	4994	5018	**5018**	–	2.8%	4.9%
Indonesia	1099	1099	1099	1099	1111	1111	1111	1094	1111	1094	**1094**	–	-0.1%	1.1%
Japan	4274	4254	4123	3749	3721	3600	3343	3343	3343	3285	**3285**	–	-2.6%	3.2%
Malaysia	601	606	612	612	612	618	625	625	625	955	**955**	–	4.7%	0.9%
New Zealand	136	136	136	136	136	136	136	136	136	136	**135**	-0.4%	◆	0.1%
Pakistan	279	275	390	390	389	389	401	401	401	411	**411**	–	4.0%	0.4%
Philippines	261	261	270	271	271	271	271	271	271	180	**180**	–	-3.7%	0.2%
Singapore	1427	1422	1414	1514	1514	1514	1514	1514	1514	1514	**1461**	-3.5%	0.2%	1.4%
South Korea	2864	2878	2878	3123	3128	3259	3298	3346	3393	3572	**3572**	–	2.2%	3.5%
Taiwan	1197	1197	1197	1197	988	988	1083	1083	1083	1131	**1131**	–	-0.6%	1.1%
Thailand	1230	1230	1237	1252	1252	1235	1235	1235	1235	1245	**1245**	–	0.1%	1.2%
Vietnam	159	159	159	159	159	163	167	367	367	367	**367**	–	8.7%	0.4%
Other Asia Pacific	184	184	190	197	197	197	197	197	357	357	**357**	–	6.8%	0.4%
Total Asia Pacific	31302	32363	33231	33849	33294	33490	33808	34735	35527	36459	**36478**	0.1%	1.5%	35.8%
Total World	**95051**	**95421**	**96681**	**97739**	**98167**	**98689**	**98965**	**100348**	**101971**	**102331**	**101912**	**-0.4%**	**0.7%**	**100.0%**
of which: OECD	45552	45376	44881	44485	44771	44853	44684	45154	45503	44781	**43730**	-2.3%	-0.4%	42.9%
Non-OECD	49499	50045	51800	53254	53396	53835	54280	55194	56468	57551	**58182**	1.1%	1.6%	57.1%
European Union	13432	13143	12777	12824	12871	12761	12757	12735	12748	12656	**12310**	-2.7%	-0.9%	12.1%

*Atmospheric distillation capacity at year end on a calendar-day basis.
◆Less than 0.05%.

Source: includes data from ICIS.

Oil: Trade movements

Thousand barrels daily	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	**2021**	Growth rate per annum 2021	Growth rate per annum 2011-21	Share 2021
Imports														
US	11338	10587	9859	9241	9451	10056	10147	9928	9142	7869	**8478**	7.7%	-2.9%	12.7%
Europe	12489	12721	12920	12957	14024	14342	15012	14473	14396	13206	**13522**	2.4%	0.8%	20.2%
China	6295	6675	6978	7398	8333	9215	10241	11028	11861	12932	**12724**	-1.6%	7.3%	19.0%
India	3823	4168	4370	4155	4396	4945	4920	5196	5394	4898	**5325**	8.7%	3.4%	8.0%
Japan	4494	4743	4637	4383	4332	4180	4142	3940	3780	3310	**3350**	1.2%	-2.9%	5.0%
Rest of World	17634	17812	20012	21193	22913	28491	25629	25819	25320	22701	**23559**	3.8%	2.9%	35.2%
Total World	**56072**	**56706**	**58776**	**59328**	**63449**	**71230**	**70090**	**70383**	**69893**	**64916**	**66958**	**3.1%**	**1.8%**	**100.0%**
Exports														
Canada	2798	3056	3296	3536	3837	3889	4233	4499	4678	4425	**4666**	5.5%	5.2%	7.0%
Mexico	1487	1366	1347	1293	1321	1405	1289	1307	1254	1251	**1234**	-1.3%	-1.8%	1.8%
US	2495	2682	3563	4033	4563	5077	5878	7037	8003	8128	**7892**	-2.9%	12.2%	11.8%
S. & Cent. America	3755	3830	3790	3939	4106	5735	3976	3736	3451	3452	**2987**	-13.5%	-2.3%	4.5%
Europe	2139	2181	2545	2467	3064	4907	3387	3405	3236	2732	**3041**	11.3%	3.6%	4.5%
Russia	7448	7457	7948	7792	8444	8823	8992	8117	8122	7778	**8234**	5.9%	1.0%	12.3%
Other CIS	2180	1962	2166	2092	2045	2097	2236	2060	2127	2089	**2120**	1.5%	-0.3%	3.2%
Saudi Arabia	8120	8468	8365	7911	8008	8729	8352	8574	8348	7904	**7696**	-2.6%	-0.5%	11.5%
Middle East (ex Saudi Arabia)	12188	11742	12242	12699	13977	15902	16205	16069	14678	13531	**14074**	4.0%	1.4%	21.0%
North Africa	1951	2602	2127	1743	1747	1735	2600	2748	2783	1844	**2664**	44.5%	3.2%	4.0%
West Africa	4759	4724	4590	4849	4891	4458	4523	4558	4619	4223	**3942**	-6.7%	-1.9%	5.9%
Asia Pacific (ex Japan)	6088	6299	6307	6450	5896	6348	6556	6442	6602	6058	**6566**	8.4%	0.8%	9.8%
Rest of World	663	338	491	524	1550	2124	1863	1831	1993	1502	**1842**	22.7%	10.8%	2.8%
Total World	**56072**	**56706**	**58776**	**59328**	**63449**	**71230**	**70090**	**70383**	**69893**	**64916**	**66958**	**3.1%**	**1.8%**	**100.0%**

Notes: Unless otherwise stated, this table shows inter-regional trade based on the regional classification in the table 'Oil trade in 2020 and 2021'.
Bunker fuel use is not included as exports. Intra-area movements (for example, between countries within Europe) are excluded.
Annual changes and shares of total are calculated using thousand barrels daily figures.

Oil: Inter-area movements 2021

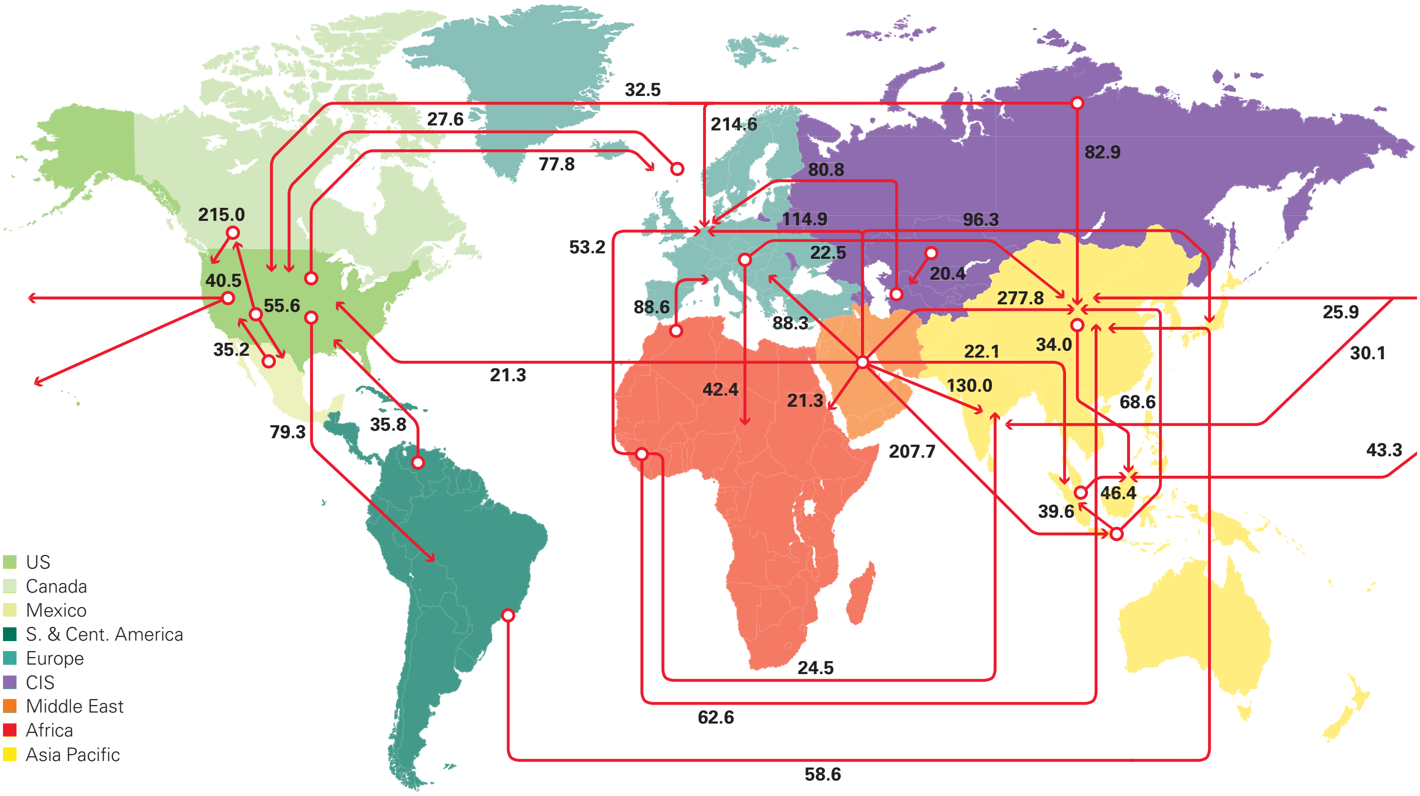
Crude (million tonnes)	To															
From	Canada	Mexico	US	S. & Cent. America	Europe	Russia	Other CIS	Middle East	Africa	Australasia	China	India	Japan	Singapore	Other Asia Pacific	**Total**
Canada	–	–	187.1	0.7	4.1	–	–	†	†	–	3.9	0.6	–	†	1.0	**197.4**
Mexico	–	–	29.0	0.1	7.6	–	–	0.1	–	–	0.4	7.9	0.1	–	7.7	**52.9**
US	15.5	–	–	8.3	51.4	†	†	0.4	0.4	0.6	11.5	20.5	0.9	3.9	25.1	**138.5**
S. & Cent. America	0.6	†	29.2	–	11.2	†	–	1.1	0.4	–	57.6	10.5	2.5	6.0	5.0	**124.1**
Europe	0.1	–	4.4	0.5	–	†	0.1	0.2	0.2	†	21.2	3.6	0.2	0.3	5.6	**36.4**
Russia	–	–	9.9	0.7	138.7	–	15.7	–	–	0.3	79.6	4.5	4.4	0.6	9.1	**263.6**
Other CIS	0.6	–	0.9	0.1	67.0	†	–	3.5	1.0	0.2	4.8	1.2	0.1	†	7.7	**87.1**
Iraq	–	–	7.6	0.7	47.5	†	†	0.9	1.3	–	54.1	52.0	0.4	0.8	10.8	**176.1**
Kuwait	–	–	1.0	–	†	–	–	†	2.6	0.1	30.2	13.6	10.5	0.5	29.8	**88.4**
Saudi Arabia	3.5	–	17.7	3.2	28.5	–	0.1	10.9	8.9	–	87.6	34.3	48.7	4.7	75.3	**323.2**
UAE	–	–	0.8	†	0.1	†	–	†	0.5	4.2	31.9	23.0	41.6	13.2	30.6	**146.1**
Other Middle East	–	–	0.1	†	1.0	–	†	†	†	†	53.9	7.4	10.8	7.3	16.4	**97.0**
North Africa	0.1	–	5.4	1.6	57.8	–	0.1	0.9	†	0.4	6.7	4.5	0.5	0.5	7.0	**85.4**
West Africa	3.5	–	9.7	5.6	51.7	†	†	3.5	6.6	1.5	59.9	24.5	–	3.1	17.6	**187.4**
East & S. Africa	†	–	0.4	0.1	0.9	†	–	†	†	–	0.7	1.7	0.2	0.1	0.5	**4.8**
Australasia	†	–	–	†	†	–	–	0.2	†	–	0.5	–	0.2	2.5	5.7	**9.2**
China	–	–	–	–	–	–	–	–	–	–	–	0.1	–	0.1	1.4	**1.6**
India	–	–	–	†	†	–	–	†	†	†	–	–	–	†	†	**0.1**
Japan	†	–	–	†	†	–	–	–	†	–	–	0.1	–	–	0.3	**0.4**
Singapore	–	–	–	†	†	–	–	†	†	0.6	–	–	–	–	0.4	**1.0**
Other Asia Pacific	†	–	1.2	†	0.1	–	–	0.2	0.1	6.9	21.7	3.7	1.0	3.3	–	**38.2**
Total imports	**23.9**	**†**	**304.7**	**21.8**	**467.7**	**†**	**15.9**	**21.8**	**22.1**	**14.9**	**526.0**	**213.7**	**122.1**	**47.0**	**257.1**	**2058.9**

Product (million tonnes)																
From	Canada	Mexico	US	S. & Cent. America	Europe	Russia	Other CIS	Middle East	Africa	Australasia	China	India	Japan	Singapore	Other Asia Pacific	**Total**
Canada	–	0.2	27.9	1.6	0.4	†	†	†	†	†	1.2	†	1.7	†	0.5	**33.5**
Mexico	†	–	6.1	0.9	0.1	–	†	†	0.1	†	†	†	–	1.0	†	**8.2**
US	25.0	55.6	–	71.0	26.4	†	†	1.6	7.6	1.0	14.4	9.5	12.4	1.6	18.2	**244.4**
S. & Cent. America	0.2	0.5	6.6	–	3.9	†	†	0.4	3.1	†	1.0	0.1	0.9	4.8	2.2	**23.6**
Europe	4.7	1.5	23.2	10.0	–	0.3	1.0	12.2	42.2	0.1	1.3	1.6	0.8	6.5	5.1	**110.5**
Russia	0.3	†	22.6	3.3	75.9	–	4.7	8.8	4.4	†	3.2	2.1	0.6	3.7	10.8	**140.7**
Other CIS	†	†	0.7	0.1	13.8	0.9	–	0.3	0.7	†	0.3	0.1	–	†	0.8	**17.7**
Iraq	†	–	0.3	†	1.4	†	†	0.5	†	–	0.5	2.9	0.1	2.4	4.3	**12.3**
Kuwait	†	–	0.6	0.1	2.3	–	†	3.6	2.4	†	1.8	2.5	2.0	0.5	8.5	**24.3**
Saudi Arabia	†	–	3.5	1.1	10.9	†	†	5.6	12.5	†	2.9	7.9	1.7	2.2	9.5	**57.7**
UAE	†	–	1.1	2.0	6.4	†	†	8.9	12.9	0.6	7.3	10.0	4.4	8.9	24.3	**86.7**
Other Middle East	0.1	†	1.7	1.0	6.0	†	0.9	10.3	6.8	†	7.7	7.1	5.0	2.7	13.2	**62.4**
North Africa	†	–	2.6	0.7	30.8	†	†	0.8	0.4	†	1.9	0.1	0.7	2.6	4.8	**45.4**
West Africa	†	†	1.2	1.6	1.5	†	†	†	0.6	†	2.7	†	–	0.2	0.8	**8.6**
East & S. Africa	†	†	†	0.2	0.2	†	†	1.3	0.5	†	0.3	†	†	0.2	0.1	**2.7**
Australasia	†	†	–	0.1	0.9	†	†	0.1	0.1	–	1.3	0.1	1.4	0.8	0.7	**5.4**
China	0.2	0.5	0.2	5.7	3.3	†	0.1	1.7	4.5	0.1	–	0.6	0.7	10.5	32.6	**60.6**
India	0.1	†	4.8	3.5	8.3	†	†	16.1	12.5	2.7	0.5	–	1.1	5.2	14.6	**69.3**
Japan	†	0.2	1.0	0.6	0.7	†	†	†	†	0.1	1.2	0.1	–	1.8	5.2	**11.0**
Singapore	†	0.2	1.5	0.6	0.7	†	†	1.2	1.1	8.5	7.0	1.8	0.3	–	45.9	**68.9**
Other Asia Pacific	0.1	0.2	7.3	1.9	3.8	0.5	0.2	3.4	5.8	13.0	46.9	2.8	9.2	36.2	–	**131.2**
Total imports	**30.6**	**59.0**	**112.9**	**105.8**	**197.5**	**1.9**	**6.9**	**76.9**	**118.0**	**26.2**	**103.4**	**49.4**	**43.0**	**91.8**	**202.1**	**1225.2**

†Less than 0.05.
Notes: Does not include biofuels trade. Bunker fuel use is not included as exports. Intra-area movements (for example, between countries within Europe) are excluded.
Crude imports and exports include condensates.

Major trade movements 2021

Trade flows worldwide (million tonnes)



Oil trade in 2020 and 2021

Million tonnes	2020 Crude imports	2020 Product imports	2020 Crude exports	2020 Product exports	2021 Crude imports	2021 Product imports	2021 Crude exports	2021 Product exports
Canada	29.2	28.8	189.0	30.7	23.9	30.6	197.4	33.5
Mexico	†	54.5	56.7	5.5	†	59.0	52.9	8.2
US	293.7	95.4	159.5	236.6	304.7	112.9	138.5	244.4
S. & Cent. America	17.6	91.1	146.2	25.1	21.8	105.8	124.1	23.6
Europe	479.3	173.0	28.3	103.9	467.7	197.5	36.4	110.5
Russia	†	1.2	264.7	118.9	†	1.9	263.6	140.7
Other CIS	15.5	2.3	92.5	11.3	15.9	6.9	87.1	17.7
Iraq	†	6.3	177.4	17.3	†	8.3	176.1	12.3
Kuwait	†	0.7	96.9	16.6	†	0.9	88.4	24.3
Saudi Arabia	0.1	13.8	349.2	43.7	†	16.1	323.2	57.7
United Arab Emirates	11.0	30.4	138.7	63.4	3.2	31.8	146.1	86.7
Other Middle East	21.9	17.6	100.8	58.3	18.7	19.7	97.0	62.4
North Africa	12.1	28.2	50.9	39.6	9.3	30.8	85.4	45.4
West Africa	0.5	37.9	201.8	8.7	0.5	46.0	187.4	8.6
East & S. Africa	16.3	36.4	3.8	5.0	12.4	41.1	4.8	2.7
Australasia	18.6	22.3	8.7	5.8	14.9	26.2	9.2	5.4
China	557.2	85.1	0.8	58.3	526.0	103.4	1.6	60.6
India	196.9	45.8	0.1	53.3	213.7	49.4	0.1	69.3
Japan	123.5	40.1	†	10.1	122.1	43.0	0.4	11.0
Singapore	45.8	96.0	1.7	70.0	47.0	91.8	1.0	68.9
Other Asia Pacific	262.7	187.7	34.3	112.8	257.1	202.1	38.2	131.2
Total World	**2101.8**	**1094.7**	**2101.8**	**1094.7**	**2058.9**	**1225.2**	**2058.9**	**1225.2**

Thousand barrels daily	2020 Crude imports	2020 Product imports	2020 Crude exports	2020 Product exports	2021 Crude imports	2021 Product imports	2021 Crude exports	2021 Product exports
Canada	584	601	3786	639	480	640	3965	701
Mexico	‡	1136	1135	115	‡	1232	1062	172
US	5881	1988	3195	4933	6118	2359	2782	5110
S. & Cent. America	353	1899	2928	523	438	2211	2493	494
Europe	9599	3607	566	2166	9393	4129	731	2310
Russia	‡	26	5300	2478	‡	39	5293	2941
Other CIS	310	48	1852	236	320	144	1750	370
Iraq	‡	132	3553	360	‡	174	3536	257
Kuwait	‡	15	1940	346	‡	20	1775	507
Saudi Arabia	2	287	6994	911	‡	337	6491	1205
United Arab Emirates	220	635	2778	1321	64	664	2933	1813
Other Middle East	438	368	2018	1214	375	411	1947	1305
North Africa	243	589	1019	825	187	645	1715	949
West Africa	10	789	4041	182	9	962	3763	179
East & S. Africa	326	759	75	104	248	859	97	57
Australasia	373	465	175	121	299	547	185	112
China	11158	1773	16	1215	10562	2162	31	1266
India	3943	955	2	1111	4293	1032	1	1449
Japan	2474	836	‡	210	2451	899	8	229
Singapore	917	2002	33	1459	944	1920	20	1441
Other Asia Pacific	5261	3914	688	2351	5163	4224	767	2742
Total World	**42094**	**22822**	**42094**	**22822**	**41346**	**25612**	**41346**	**25612**

†Less than 0.05.
‡Less than 0.5.
Notes: Does not include biofuels trade. Bunker fuel use is not included as exports. Intra-area movements (for example, between countries within Europe) are excluded. Crude imports and exports include condensates.

Natural gas

Natural gas: Production in billion cubic metres*

Billion cubic metres	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	**2021**	Growth rate per annum 2021	Growth rate per annum 2011-21	Share 2021
Canada	151.1	150.3	151.9	159.0	160.8	165.1	171.3	176.8	169.8	165.7	**172.3**	4.3%	1.3%	4.3%
Mexico	52.1	50.9	52.5	51.3	47.9	43.7	38.3	35.2	31.3	30.5	**29.2**	-3.8%	-5.6%	0.7%
US	617.4	649.1	655.7	704.7	740.3	727.4	746.2	840.9	928.1	915.9	**934.2**	2.3%	4.2%	23.1%
Total North America	820.5	850.3	860.1	915.0	949.0	936.1	955.7	1052.9	1129.2	1112.1	**1135.8**	2.4%	3.3%	28.1%
Argentina	37.7	36.7	34.6	34.5	35.5	37.3	37.1	39.4	41.6	38.3	**38.6**	1.1%	0.2%	1.0%
Bolivia	15.0	17.1	19.6	20.3	19.6	18.8	18.3	17.1	15.0	14.5	**15.1**	4.7%	◆	0.4%
Brazil	17.2	19.8	21.9	23.3	23.8	24.1	27.2	25.2	25.7	24.2	**24.3**	0.7%	3.5%	0.6%
Colombia	10.5	11.5	13.2	12.3	11.6	12.0	11.8	12.4	12.6	12.5	**12.6**	1.2%	1.8%	0.3%
Peru	11.5	12.0	12.4	13.1	12.7	14.0	13.0	12.8	13.5	12.2	**11.5**	-5.4%	◆	0.3%
Trinidad & Tobago	38.7	38.5	38.7	38.1	36.0	31.3	31.9	34.0	34.6	29.5	**24.7**	-15.9%	-4.4%	0.6%
Venezuela	30.2	31.9	30.6	31.8	36.1	37.2	38.6	31.6	25.6	21.6	**24.0**	11.5%	-2.3%	0.6%
Other S. & Cent. America	3.2	3.0	2.7	2.6	2.9	3.1	3.1	3.0	3.2	2.7	**2.6**	-4.1%	-2.1%	0.1%
Total S. & Cent. America	164.1	170.6	173.8	176.0	178.0	177.9	180.9	175.4	171.8	155.3	**153.3**	-1.0%	-0.7%	3.8%
Denmark	6.9	6.0	5.0	4.8	4.8	4.7	5.1	4.3	3.2	1.4	**1.3**	-4.9%	-15.3%	◆
Germany	10.5	9.5	8.6	8.1	7.5	6.9	6.4	5.5	5.3	4.5	**4.5**	0.4%	-8.0%	0.1%
Italy	8.0	8.2	7.4	6.8	6.4	5.5	5.3	5.2	4.6	3.9	**3.2**	-18.4%	-8.9%	0.1%
Netherlands	69.5	68.4	72.4	60.4	45.9	44.3	37.9	32.3	27.8	20.1	**18.1**	-9.6%	-12.6%	0.4%
Norway	100.5	113.9	107.9	107.5	116.1	115.9	123.7	121.3	114.3	111.5	**114.3**	2.8%	1.3%	2.8%
Poland	4.5	4.5	4.4	4.3	4.3	4.1	4.0	4.0	4.0	3.9	**3.9**	-1.2%	-1.4%	0.1%
Romania	10.1	10.1	10.0	10.2	10.2	9.1	10.0	10.0	9.6	8.6	**8.5**	-1.3%	-1.7%	0.2%
Ukraine	19.5	19.4	20.2	20.2	18.8	19.0	19.4	19.7	19.4	19.1	**18.6**	-2.5%	-0.5%	0.5%
United Kingdom	46.1	39.2	37.0	37.4	40.7	41.7	41.9	40.6	39.2	39.5	**32.7**	-16.9%	-3.4%	0.8%
Other Europe	9.2	8.4	7.2	6.3	6.1	8.7	9.0	8.4	7.4	6.3	**5.4**	-14.5%	-5.3%	0.1%
Total Europe	284.8	287.5	280.0	266.1	260.8	259.9	262.7	251.3	234.8	218.7	**210.4**	-3.5%	-3.0%	5.2%
Azerbaijan	16.0	16.8	17.5	18.4	18.8	18.3	17.8	18.8	23.9	25.9	**31.8**	23.3%	7.1%	0.8%
Kazakhstan	28.7	29.0	30.4	31.0	31.2	31.5	33.4	33.1	33.1	33.3	**32.0**	-3.8%	1.1%	0.8%
Russian Federation	616.8	601.9	614.5	591.2	584.4	589.3	635.6	669.1	679.0	637.3	**701.7**	10.4%	1.3%	17.4%
Turkmenistan	56.3	59.0	59.0	63.5	65.9	63.2	58.7	61.5	63.2	66.0	**79.3**	20.4%	3.5%	2.0%
Uzbekistan	56.6	56.5	55.9	56.3	53.6	53.1	53.6	58.3	57.5	47.1	**50.9**	8.4%	-1.1%	1.3%
Other CIS	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	**0.3**	5.1%	-0.3%	◆
Total CIS	774.8	763.5	777.6	760.7	754.3	755.7	799.3	841.1	857.0	809.9	**896.0**	10.9%	1.5%	22.2%
Bahrain	12.6	13.1	14.0	14.7	14.6	14.4	14.5	14.6	16.3	16.4	**17.2**	5.1%	3.2%	0.4%
Iran	151.0	156.9	157.5	175.5	183.5	199.3	213.9	224.9	232.9	249.5	**256.7**	3.1%	5.4%	6.4%
Iraq	6.3	6.3	7.1	7.5	7.3	9.9	10.1	10.6	11.0	7.0	**9.4**	33.9%	4.0%	0.2%
Kuwait	12.9	14.7	15.5	14.3	16.1	16.4	16.2	16.9	18.2	16.5	**17.4**	5.9%	3.1%	0.4%
Oman	27.1	28.3	30.8	29.3	30.7	31.5	32.3	36.3	36.7	36.9	**41.8**	13.5%	4.4%	1.0%
Qatar	150.4	162.5	167.9	169.4	175.9	174.8	170.5	175.2	177.2	174.9	**177.0**	1.4%	1.6%	4.4%
Saudi Arabia	87.6	94.4	95.0	97.3	99.2	105.3	109.3	112.1	111.2	113.1	**117.3**	4.0%	3.0%	2.9%
Syria	7.4	6.1	5.0	4.6	4.1	3.5	3.5	3.5	3.3	2.7	**2.9**	5.3%	-9.0%	0.1%
United Arab Emirates	51.0	52.9	53.2	52.9	58.6	59.5	59.5	58.1	57.5	55.4	**57.0**	3.1%	1.1%	1.4%
Yemen	9.4	7.6	10.4	9.8	2.9	0.5	0.3	0.1	0.3	0.3	**0.4**	30.2%	-27.1%	◆
Other Middle East	4.2	2.5	6.3	7.3	8.1	9.0	9.5	10.1	10.1	15.0	**17.9**	19.9%	15.5%	0.4%
Total Middle East	520.0	545.5	562.6	582.6	600.9	624.3	639.6	662.4	674.6	687.8	**714.9**	4.2%	3.2%	17.7%
Algeria	79.6	78.4	79.3	80.2	81.4	91.4	93.0	93.8	87.0	81.5	**100.8**	24.1%	2.4%	2.5%
Egypt	59.1	58.6	54.0	47.0	42.6	40.3	48.8	58.6	64.9	58.5	**67.8**	16.3%	1.4%	1.7%
Libya	7.5	11.6	12.2	11.8	14.7	14.8	13.6	13.2	13.5	12.1	**12.4**	2.7%	5.2%	0.3%
Nigeria	36.4	39.2	33.1	40.0	47.6	42.6	47.2	48.3	49.3	49.4	**45.9**	-6.9%	2.3%	1.1%
Other Africa	17.9	18.9	20.5	20.7	21.8	22.8	26.9	27.9	28.3	29.8	**30.6**	3.3%	5.5%	0.8%
Total Africa	200.6	206.7	199.1	199.6	208.0	211.8	229.5	241.7	242.9	231.2	**257.5**	11.7%	2.5%	6.4%
Australia	54.2	58.0	60.3	64.9	74.1	94.0	110.1	127.4	146.1	146.0	**147.2**	1.1%	10.5%	3.6%
Bangladesh	19.6	21.3	22.0	23.0	25.9	26.5	26.6	26.6	25.3	23.7	**24.1**	2.0%	2.1%	0.6%
Brunei	12.5	12.3	11.9	12.7	13.3	12.9	12.9	12.6	13.0	12.6	**11.5**	-8.5%	-0.8%	0.3%
China	106.2	111.5	121.8	131.2	135.7	137.9	149.2	161.4	176.7	194.0	**209.2**	8.1%	7.0%	5.2%
India	42.9	37.3	31.1	29.4	28.1	26.6	27.7	27.5	26.9	23.8	**28.5**	20.4%	-4.0%	0.7%
Indonesia	82.7	78.3	77.6	76.4	76.2	75.1	72.7	72.8	67.6	59.5	**59.3**	-0.1%	-3.3%	1.5%
Malaysia	67.0	69.3	72.6	72.2	76.8	76.7	79.6	76.1	76.4	68.7	**74.2**	8.3%	1.0%	1.8%
Myanmar	12.6	12.5	12.9	16.5	19.2	18.3	17.8	17.0	18.5	17.5	**16.9**	-3.0%	3.0%	0.4%
Pakistan	35.3	36.6	35.6	35.0	35.0	34.7	34.7	34.2	32.7	30.6	**32.7**	7.1%	-0.8%	0.8%
Thailand	33.8	38.4	38.9	39.1	37.5	37.3	35.9	34.7	35.8	32.7	**31.5**	-3.3%	-0.7%	0.8%
Vietnam	8.2	9.0	9.4	9.9	10.3	10.2	9.5	9.7	9.8	8.8	**7.1**	-19.2%	-1.4%	0.2%
Other Asia Pacific	17.7	17.7	18.2	23.1	27.9	28.9	29.1	26.9	28.6	28.4	**26.6**	-6.1%	4.1%	0.7%
Total Asia Pacific	492.6	502.1	512.2	533.3	560.0	579.0	605.7	626.8	657.4	646.4	**669.0**	3.8%	3.1%	16.6%
Total World	**3257.3**	**3326.2**	**3365.4**	**3433.3**	**3511.1**	**3544.7**	**3673.5**	**3851.7**	**3967.7**	**3861.5**	**4036.9**	**4.8%**	**2.2%**	**100.0%**
of which: OECD	1151.0	1187.0	1196.5	1242.1	1281.0	1289.8	1328.0	1431.7	1511.6	1483.5	**1503.0**	1.6%	2.7%	37.2%
Non-OECD	2106.3	2139.1	2168.9	2191.2	2230.1	2255.0	2345.5	2420.0	2456.1	2378.0	**2533.8**	6.8%	1.9%	62.8%
European Union	117.5	113.9	113.9	99.9	84.3	82.3	76.8	68.8	61.1	47.8	**44.0**	-7.7%	-9.3%	1.1%

*Excludes gas flared or recycled. Includes natural gas produced for Gas-to-Liquids transformation.
◆Less than 0.05%.

Source: includes data from Cedigaz, FGE MENA natural gas service.

Notes: As far as possible, the data above represents standard cubic metres (measured at 15°C and 1013 mbar); as they are derived directly from measures of energy content using an average conversion factor and have been standardized using a gross calorific value (GCV) of 40 MJ/m³, they do not necessarily equate with gas volumes expressed in specific national terms.
Growth rates are adjusted for leap years.
Annual changes and shares of total are calculated using billion cubic metres figures.

Natural gas: Production in exajoules*

Exajoules	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	**2021**	Growth rate per annum 2021	Growth rate per annum 2011-21	Share 2021
Canada	5.44	5.41	5.47	5.72	5.79	5.94	6.17	6.36	6.11	5.97	**6.20**	4.3%	1.3%	4.3%
Mexico	1.88	1.83	1.89	1.85	1.73	1.57	1.38	1.27	1.13	1.10	**1.05**	-3.8%	-5.6%	0.7%
US	22.22	23.37	23.60	25.37	26.65	26.18	26.86	30.27	33.41	32.97	**33.63**	2.3%	4.2%	23.1%
Total North America	29.54	30.61	30.96	32.94	34.16	33.70	34.41	37.91	40.65	40.04	**40.89**	2.4%	3.3%	28.1%
Argentina	1.36	1.32	1.24	1.24	1.28	1.34	1.34	1.42	1.50	1.38	**1.39**	1.1%	0.2%	1.0%
Bolivia	0.54	0.62	0.70	0.73	0.70	0.68	0.66	0.61	0.54	0.52	**0.54**	4.7%	♦	0.4%
Brazil	0.62	0.71	0.79	0.84	0.86	0.87	0.98	0.91	0.93	0.87	**0.88**	0.7%	3.5%	0.6%
Colombia	0.38	0.41	0.48	0.44	0.42	0.43	0.42	0.45	0.45	0.45	**0.45**	1.2%	1.8%	0.3%
Peru	0.41	0.43	0.45	0.47	0.46	0.50	0.47	0.46	0.49	0.44	**0.41**	-5.4%	♦	0.3%
Trinidad & Tobago	1.39	1.39	1.39	1.37	1.29	1.13	1.15	1.22	1.24	1.06	**0.89**	-15.9%	-4.4%	0.6%
Venezuela	1.09	1.15	1.10	1.14	1.30	1.34	1.39	1.14	0.92	0.78	**0.86**	11.5%	-2.3%	0.6%
Other S. & Cent. America	0.11	0.11	0.10	0.09	0.10	0.11	0.11	0.11	0.12	0.10	**0.09**	-4.1%	-2.1%	0.1%
Total S. & Cent. America	5.91	6.14	6.26	6.34	6.41	6.40	6.51	6.32	6.19	5.59	**5.52**	-1.0%	-0.7%	3.8%
Denmark	0.25	0.22	0.18	0.17	0.17	0.17	0.18	0.15	0.12	0.05	**0.05**	-4.9%	-15.3%	♦
Germany	0.38	0.34	0.31	0.29	0.27	0.25	0.23	0.20	0.19	0.16	**0.16**	0.4%	-8.0%	0.1%
Italy	0.29	0.30	0.27	0.25	0.23	0.20	0.19	0.19	0.17	0.14	**0.11**	-18.4%	-8.9%	0.1%
Netherlands	2.50	2.46	2.61	2.17	1.65	1.59	1.37	1.16	1.00	0.72	**0.65**	-9.6%	-12.6%	0.4%
Norway	3.62	4.10	3.89	3.87	4.18	4.17	4.45	4.37	4.11	4.01	**4.12**	2.8%	1.3%	2.8%
Poland	0.16	0.16	0.16	0.16	0.15	0.15	0.15	0.14	0.14	0.14	**0.14**	-1.2%	-1.4%	0.1%
Romania	0.36	0.36	0.36	0.37	0.37	0.33	0.36	0.36	0.35	0.31	**0.30**	-1.3%	-1.7%	0.2%
Ukraine	0.70	0.70	0.73	0.73	0.68	0.68	0.70	0.71	0.70	0.69	**0.67**	-2.5%	-0.5%	0.5%
United Kingdom	1.66	1.41	1.33	1.35	1.46	1.50	1.51	1.46	1.41	1.42	**1.18**	-16.9%	-3.4%	0.8%
Other Europe	0.33	0.30	0.26	0.23	0.22	0.31	0.32	0.30	0.27	0.23	**0.19**	-14.5%	-5.3%	0.1%
Total Europe	10.25	10.35	10.08	9.58	9.39	9.36	9.46	9.05	8.45	7.87	**7.58**	-3.5%	-3.0%	5.2%
Azerbaijan	0.58	0.61	0.63	0.66	0.68	0.66	0.64	0.68	0.86	0.93	**1.15**	23.3%	7.1%	0.8%
Kazakhstan	1.03	1.04	1.10	1.12	1.12	1.13	1.20	1.19	1.19	1.20	**1.15**	-3.8%	1.1%	0.8%
Russian Federation	22.21	21.67	22.12	21.28	21.04	21.21	22.88	24.09	24.45	22.94	**25.26**	10.4%	1.3%	17.4%
Turkmenistan	2.03	2.12	2.12	2.29	2.37	2.28	2.11	2.21	2.27	2.38	**2.85**	20.4%	3.5%	2.0%
Uzbekistan	2.04	2.03	2.01	2.03	1.93	1.91	1.93	2.10	2.07	1.70	**1.83**	8.4%	-1.1%	1.3%
Other CIS	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	**0.01**	5.1%	-0.3%	♦
Total CIS	27.89	27.49	27.99	27.39	27.15	27.21	28.78	30.28	30.85	29.16	**32.26**	10.9%	1.5%	22.2%
Bahrain	0.45	0.47	0.50	0.53	0.53	0.52	0.52	0.53	0.59	0.59	**0.62**	5.1%	3.2%	0.4%
Iran	5.44	5.65	5.67	6.32	6.61	7.18	7.70	8.10	8.38	8.98	**9.24**	3.1%	5.4%	6.4%
Iraq	0.23	0.23	0.25	0.27	0.26	0.36	0.36	0.38	0.39	0.25	**0.34**	33.9%	4.0%	0.2%
Kuwait	0.46	0.53	0.56	0.51	0.58	0.59	0.58	0.61	0.65	0.59	**0.63**	5.9%	3.1%	0.4%
Oman	0.98	1.02	1.11	1.06	1.11	1.13	1.16	1.31	1.32	1.33	**1.50**	13.5%	4.4%	1.0%
Qatar	5.41	5.85	6.04	6.10	6.33	6.29	6.14	6.31	6.38	6.30	**6.37**	1.4%	1.6%	4.4%
Saudi Arabia	3.16	3.40	3.42	3.50	3.57	3.79	3.93	4.04	4.00	4.07	**4.22**	4.0%	3.0%	2.9%
Syria	0.27	0.22	0.18	0.17	0.15	0.13	0.13	0.12	0.12	0.10	**0.10**	5.3%	-9.0%	0.1%
United Arab Emirates	1.84	1.91	1.92	1.90	2.11	2.14	2.14	2.09	2.07	2.00	**2.05**	3.1%	1.1%	1.4%
Yemen	0.34	0.27	0.37	0.35	0.10	0.02	0.01	†	0.01	0.01	**0.01**	30.2%	-27.1%	♦
Other Middle East	0.15	0.09	0.23	0.26	0.29	0.33	0.34	0.36	0.37	0.54	**0.64**	19.9%	15.5%	0.4%
Total Middle East	18.72	19.64	20.25	20.97	21.63	22.47	23.03	23.85	24.28	24.76	**25.73**	4.2%	3.2%	17.7%
Algeria	2.87	2.82	2.86	2.89	2.93	3.29	3.35	3.38	3.13	2.93	**3.63**	24.1%	2.4%	2.5%
Egypt	2.13	2.11	1.94	1.69	1.53	1.45	1.76	2.11	2.34	2.10	**2.44**	16.3%	1.4%	1.7%
Libya	0.27	0.42	0.44	0.43	0.53	0.53	0.49	0.47	0.49	0.44	**0.45**	2.7%	5.2%	0.3%
Nigeria	1.31	1.41	1.19	1.44	1.71	1.53	1.70	1.74	1.77	1.78	**1.65**	-6.9%	2.3%	1.1%
Other Africa	0.65	0.68	0.74	0.74	0.78	0.82	0.97	1.00	1.02	1.07	**1.10**	3.3%	5.5%	0.8%
Total Africa	7.22	7.44	7.17	7.19	7.49	7.63	8.26	8.70	8.75	8.32	**9.27**	11.7%	2.5%	6.4%
Australia	1.95	2.09	2.17	2.34	2.67	3.38	3.96	4.59	5.26	5.25	**5.30**	1.1%	10.5%	3.6%
Bangladesh	0.70	0.77	0.79	0.83	0.93	0.95	0.96	0.96	0.91	0.85	**0.87**	2.0%	2.1%	0.6%
Brunei	0.45	0.44	0.43	0.46	0.48	0.47	0.46	0.45	0.47	0.46	**0.42**	-8.5%	-0.8%	0.3%
China	3.82	4.01	4.39	4.72	4.88	4.97	5.37	5.81	6.36	6.98	**7.53**	8.1%	7.0%	5.2%
India	1.55	1.34	1.12	1.06	1.01	0.96	1.00	0.99	0.97	0.86	**1.03**	20.4%	-4.0%	0.7%
Indonesia	2.98	2.82	2.79	2.75	2.74	2.70	2.62	2.62	2.43	2.14	**2.13**	-0.1%	-3.3%	1.5%
Malaysia	2.41	2.49	2.61	2.60	2.77	2.76	2.86	2.74	2.75	2.47	**2.67**	8.3%	1.0%	1.8%
Myanmar	0.45	0.45	0.46	0.60	0.69	0.66	0.64	0.61	0.67	0.63	**0.61**	-3.0%	3.0%	0.4%
Pakistan	1.27	1.32	1.28	1.26	1.26	1.25	1.25	1.23	1.18	1.10	**1.18**	7.1%	-0.8%	0.8%
Thailand	1.22	1.38	1.40	1.41	1.35	1.34	1.29	1.25	1.29	1.18	**1.13**	-3.3%	-0.7%	0.8%
Vietnam	0.29	0.32	0.34	0.35	0.37	0.37	0.34	0.35	0.35	0.32	**0.26**	-19.2%	-1.4%	0.2%
Other Asia Pacific	0.64	0.64	0.66	0.83	1.00	1.04	1.05	0.97	1.03	1.02	**0.96**	-6.1%	4.1%	0.7%
Total Asia Pacific	17.73	18.08	18.44	19.20	20.16	20.85	21.81	22.57	23.67	23.27	**24.08**	3.8%	3.1%	16.6%
Total World	**117.26**	**119.74**	**121.15**	**123.60**	**126.40**	**127.61**	**132.25**	**138.66**	**142.84**	**139.01**	**145.33**	**4.8%**	**2.2%**	**100.0%**
of which: OECD	41.44	42.73	43.07	44.72	46.12	46.43	47.81	51.54	54.42	53.41	**54.11**	1.6%	2.7%	37.2%
Non-OECD	75.83	77.01	78.08	78.88	80.28	81.18	84.44	87.12	88.42	85.61	**91.22**	6.8%	1.9%	62.8%
European Union	4.23	4.10	4.10	3.60	3.03	2.96	2.76	2.48	2.20	1.72	**1.59**	-7.7%	-9.3%	1.1%

*Excludes gas flared or recycled. Includes natural gas produced for gas-to-liquids transformation.
†Less than 0.005.
♦Less than 0.05%.
Notes: Growth rates are adjusted for leap years.
Annual changes and shares of total are calculated using exajoules figures.

Source: includes data from Cedigaz, FGE MENA natural gas service.

Natural gas: Consumption in billion cubic metres*

Billion cubic metres	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Growth rate per annum 2021	2011-21	Share 2021
Canada	100.6	99.4	105.4	109.8	110.3	105.0	109.9	115.6	117.3	113.3	**119.2**	5.5%	1.7%	3.0%
Mexico	70.8	73.7	77.8	78.8	80.8	83.0	86.0	87.6	88.0	83.7	**88.2**	5.7%	2.2%	2.2%
US	658.2	688.1	707.0	722.3	743.6	749.1	740.0	821.7	850.7	831.9	**826.7**	-0.4%	2.3%	20.5%
Total North America	829.6	861.2	890.3	911.0	934.7	937.1	935.9	1024.9	1056.0	1028.9	**1034.1**	0.8%	2.2%	25.6%
Argentina	43.8	45.7	46.0	46.2	46.7	48.2	48.3	48.7	46.6	43.9	**45.9**	4.8%	0.5%	1.1%
Brazil	27.5	32.6	38.4	40.7	42.9	37.1	37.6	35.9	35.7	31.4	**40.4**	29.1%	3.9%	1.0%
Chile	5.8	5.3	5.3	4.4	4.8	5.9	5.6	5.6	6.5	6.2	**6.3**	0.9%	0.7%	0.2%
Colombia	8.5	9.5	10.5	11.4	11.2	12.1	11.8	12.7	12.9	13.1	**12.6**	-3.5%	4.0%	0.3%
Ecuador	0.6	0.7	0.9	0.9	0.8	0.9	0.8	0.7	0.6	0.6	**0.5**	-0.1%	-0.2%	◆
Peru	6.3	6.9	6.7	7.4	7.6	8.5	7.5	8.0	8.2	7.1	**8.0**	12.8%	2.5%	0.2%
Trinidad & Tobago	20.5	20.2	20.4	20.5	19.6	16.9	18.3	17.4	17.5	15.2	**15.6**	3.0%	-2.7%	0.4%
Venezuela	33.3	34.6	32.3	34.0	37.0	37.2	38.6	31.6	25.6	21.6	**24.0**	11.5%	-3.2%	0.6%
Central America	–	–	–	–	–	–	–	0.2	0.5	0.4	**0.3**	-20.9%	–	◆
Other Caribbean	2.7	3.2	3.6	3.7	3.7	3.8	3.6	4.1	5.0	4.6	**6.0**	30.7%	8.1%	0.1%
Other South America	3.0	3.1	3.3	3.5	3.4	3.5	3.6	3.7	3.8	3.1	**3.6**	17.3%	1.8%	0.1%
Total S. & Cent. America	152.1	161.8	167.3	172.6	177.8	174.2	175.8	168.7	162.8	147.2	**163.3**	11.3%	0.7%	4.0%
Austria	9.0	8.6	8.2	7.5	8.0	8.3	9.1	8.7	8.9	8.5	**9.0**	6.0%	◆	0.2%
Belgium	16.5	16.7	16.5	14.5	15.8	16.2	16.4	16.9	17.4	17.0	**17.0**	0.1%	0.3%	0.4%
Bulgaria	3.1	2.9	2.8	2.7	3.0	3.1	3.2	3.0	2.8	2.9	**3.3**	13.4%	0.8%	0.1%
Croatia	3.0	2.8	2.7	2.3	2.4	2.5	2.9	2.7	2.8	2.9	**2.8**	-3.5%	-0.6%	0.1%
Cyprus	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Czech Republic	7.9	8.0	8.1	7.2	7.5	8.2	8.4	8.0	8.3	8.5	**9.1**	7.5%	1.4%	0.2%
Denmark	4.3	4.1	3.8	3.3	3.3	3.4	3.2	3.1	2.9	2.3	**2.3**	◆	-6.1%	0.1%
Estonia	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.4	**0.5**	13.3%	-1.8%	◆
Finland	3.6	3.2	3.0	2.7	2.3	2.0	1.8	2.1	2.0	2.1	**2.0**	-1.2%	-5.5%	0.1%
France	43.0	44.4	45.1	37.9	40.8	44.5	44.8	42.8	43.7	40.6	**43.0**	6.3%	◆	1.1%
Germany	80.9	81.1	85.0	73.9	77.0	84.9	87.7	85.9	89.3	87.1	**90.5**	4.2%	1.1%	2.2%
Greece	4.6	4.2	3.7	2.8	3.1	4.0	4.8	4.7	5.2	6.3	**7.0**	10.4%	4.3%	0.2%
Hungary	10.9	9.7	9.1	8.1	8.7	9.3	9.9	9.6	9.8	10.2	**10.8**	6.1%	-0.1%	0.3%
Iceland	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Ireland	4.8	4.7	4.5	4.3	4.4	4.9	5.0	5.2	5.3	5.3	**5.1**	-3.8%	0.6%	0.1%
Italy	74.2	71.4	66.7	59.0	64.3	67.5	71.6	69.2	70.8	67.6	**72.5**	7.5%	-0.2%	1.8%
Latvia	1.5	1.4	1.4	1.3	1.3	1.3	1.2	1.4	1.3	1.1	**1.2**	8.3%	-2.7%	◆
Lithuania	3.2	3.1	2.5	2.4	2.4	2.1	2.2	2.2	2.2	2.4	**2.2**	-5.3%	-3.4%	0.1%
Luxembourg	1.2	1.2	1.0	1.0	0.9	0.8	0.8	0.8	0.8	0.7	**0.8**	7.2%	-4.3%	◆
Netherlands	40.9	39.3	39.1	34.5	34.1	35.2	36.1	35.5	37.0	36.2	**35.1**	-2.7%	-1.5%	0.9%
North Macedonia	0.1	0.1	0.2	0.1	0.1	0.2	0.3	0.2	0.3	0.3	**0.4**	26.4%	12.3%	◆
Norway	4.0	4.0	4.0	4.3	4.5	4.4	4.6	4.4	4.6	4.4	**4.3**	-2.5%	0.6%	0.1%
Poland	16.5	17.4	17.4	17.0	17.1	18.3	19.2	19.9	20.9	21.1	**23.2**	10.7%	3.5%	0.6%
Portugal	5.3	4.6	4.3	4.1	4.8	5.1	6.3	5.8	6.1	6.0	**5.9**	-2.6%	1.1%	0.1%
Romania	12.9	12.5	11.4	10.9	10.4	10.5	11.3	11.6	10.8	11.3	**11.4**	1.8%	-1.2%	0.3%
Slovakia	5.4	5.1	5.3	4.4	4.5	4.5	4.8	4.7	4.8	4.8	**5.3**	12.2%	-0.1%	0.1%
Slovenia	0.9	0.8	0.8	0.7	0.8	0.8	0.9	0.9	0.9	0.9	**0.9**	5.6%	0.5%	◆
Spain	33.6	33.2	30.3	27.5	28.5	29.1	31.7	31.5	36.0	32.5	**33.9**	4.6%	0.1%	0.8%
Sweden	1.2	1.1	1.0	0.8	0.9	1.0	1.0	1.0	1.0	1.3	**1.3**	2.9%	0.7%	◆
Switzerland	3.1	3.4	3.6	3.1	3.3	3.5	3.5	3.3	3.4	3.3	**3.6**	9.0%	1.5%	0.1%
Turkey	41.8	43.3	44.0	46.6	46.0	44.5	51.6	47.2	43.4	46.2	**57.3**	24.4%	3.2%	1.4%
Ukraine	56.1	51.8	47.7	40.3	32.0	31.4	30.2	30.6	28.3	29.3	**26.1**	-10.8%	-7.4%	0.6%
United Kingdom	81.9	76.9	76.3	70.1	72.0	80.7	78.5	78.6	77.7	73.0	**76.9**	5.7%	-0.6%	1.9%
Other Europe	4.2	3.9	4.2	4.1	4.5	4.6	5.3	5.3	5.5	5.5	**6.2**	14.8%	4.0%	0.2%
Total Europe	580.4	565.7	554.4	500.0	509.2	537.4	558.8	547.4	554.5	542.0	**571.1**	5.7%	-0.2%	14.1%
Azerbaijan	8.9	9.4	9.4	9.9	11.1	10.9	10.6	10.8	11.8	12.4	**12.7**	3.1%	3.6%	0.3%
Belarus	19.2	19.4	19.3	19.1	17.9	17.8	18.2	19.3	19.2	17.8	**19.0**	7.5%	-0.1%	0.5%
Kazakhstan	9.9	10.7	11.2	12.7	12.9	13.4	14.1	16.5	16.6	17.4	**15.1**	-12.9%	4.4%	0.4%
Russian Federation	435.6	428.6	424.9	422.2	408.7	420.6	431.1	454.5	444.3	423.5	**474.6**	12.4%	0.9%	11.8%
Turkmenistan	20.7	22.9	19.3	20.0	25.4	25.1	24.8	28.4	31.5	29.6	**36.7**	24.2%	5.9%	0.9%
Uzbekistan	47.4	46.2	46.2	48.5	46.3	43.3	44.8	44.4	44.6	43.6	**46.4**	6.9%	-0.2%	1.1%
Other CIS	5.5	5.7	4.8	5.3	5.2	5.1	5.1	5.9	5.6	5.9	**6.2**	6.1%	1.3%	0.2%
Total CIS	547.2	543.0	535.0	537.6	527.5	536.4	548.7	579.8	573.5	550.1	**610.8**	11.4%	1.1%	15.1%
Iran	153.2	152.5	153.8	173.4	184.0	196.3	205.0	212.6	218.4	234.3	**241.1**	3.2%	4.6%	6.0%
Iraq	6.3	6.3	7.1	7.5	7.3	9.9	11.4	14.6	19.5	18.5	**17.1**	-7.3%	10.5%	0.4%
Israel	4.7	2.4	6.6	7.2	8.1	9.2	9.9	10.5	10.8	11.3	**11.7**	3.5%	9.4%	0.3%
Kuwait	15.9	17.5	17.8	17.9	20.3	21.1	21.0	21.2	23.3	22.1	**25.1**	13.5%	4.7%	0.6%
Oman	18.1	19.7	21.7	21.3	23.0	22.9	23.4	25.0	25.0	25.9	**29.5**	14.2%	5.0%	0.7%
Qatar	28.9	33.6	35.3	38.4	43.4	41.4	41.2	40.7	41.9	38.9	**40.0**	3.1%	3.3%	1.0%
Saudi Arabia	87.6	94.4	95.0	97.3	99.2	105.3	109.3	112.1	111.2	113.1	**117.3**	4.0%	3.0%	2.9%
United Arab Emirates	61.6	63.9	64.7	63.4	71.5	71.9	72.5	71.2	71.0	69.6	**69.4**	◆	1.2%	1.7%
Other Middle East	22.1	20.6	21.3	20.9	22.5	23.1	23.2	22.0	23.2	23.2	**24.3**	4.9%	0.9%	0.6%
Total Middle East	398.5	411.0	423.4	447.4	479.3	501.2	516.8	529.9	544.2	556.9	**575.4**	3.6%	3.7%	14.3%
Algeria	26.8	29.9	32.1	36.1	37.9	38.6	39.5	43.4	45.1	43.6	**45.8**	5.4%	5.5%	1.1%
Egypt	47.8	50.6	49.5	46.2	46.0	49.4	55.9	59.6	59.0	58.3	**61.9**	6.4%	2.6%	1.5%
Morocco	0.9	1.2	1.1	1.1	1.1	1.1	1.1	1.0	1.0	0.8	**0.8**	0.9%	-1.4%	◆
South Africa	4.3	4.4	4.1	4.3	4.3	3.7	4.0	4.4	4.3	4.0	**3.9**	-2.7%	-1.0%	0.1%
Eastern Africa	1.0	1.1	1.1	1.3	1.6	2.0	2.0	2.1	2.4	2.3	**2.7**	16.2%	10.8%	0.1%
Middle Africa	3.0	3.7	4.1	4.0	4.3	5.5	5.5	5.5	5.1	5.3	**6.1**	16.5%	7.5%	0.2%
Western Africa	12.2	12.9	12.7	16.0	23.8	21.1	22.0	23.5	24.2	25.9	**28.0**	8.5%	8.6%	0.7%
Other Northern Africa	10.1	10.9	12.3	11.3	13.4	15.7	14.8	14.8	14.0	13.5	**15.3**	13.5%	4.2%	0.4%
Other Southern Africa	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Total Africa	106.1	114.7	117.0	120.2	132.5	137.0	144.9	154.4	155.0	153.6	**164.4**	7.3%	4.5%	4.1%
Australia	32.8	33.0	34.7	37.2	38.8	37.9	37.1	36.8	43.9	43.1	**39.4**	-8.3%	1.9%	1.0%
Bangladesh	19.6	21.3	22.0	23.0	25.9	26.5	26.6	27.4	30.9	29.9	**31.1**	4.3%	4.7%	0.8%
China	135.2	150.9	171.9	188.4	194.7	209.4	241.3	283.9	308.4	336.6	**378.7**	12.8%	10.9%	9.4%
China Hong Kong SAR	2.9	2.6	2.5	2.4	3.0	3.1	3.1	3.0	3.1	4.9	**4.8**	-2.1%	5.4%	0.1%
India	60.3	55.7	49.0	48.5	47.8	50.8	53.6	58.0	59.2	60.5	**62.2**	3.1%	0.3%	1.5%
Indonesia	42.7	43.0	44.5	44.0	45.8	44.6	43.2	44.5	44.0	37.5	**37.1**	-0.9%	-1.4%	0.9%
Japan	112.0	123.2	123.5	124.8	118.7	116.4	117.0	115.7	108.1	104.1	**103.6**	-0.2%	-0.8%	2.6%
Malaysia	38.3	42.0	44.6	44.7	46.8	45.0	45.0	44.7	45.2	38.3	**41.1**	7.5%	0.7%	1.0%
New Zealand	4.0	4.5	4.7	5.2	4.8	4.8	5.0	4.5	4.8	4.6	**3.9**	-14.9%	-0.4%	0.1%
Pakistan	35.3	36.6	35.6	35.0	36.5	38.7	40.7	43.6	44.5	41.2	**44.8**	9.1%	2.4%	1.1%
Philippines	3.8	3.6	3.4	3.5	3.3	3.8	3.8	4.1	4.2	3.8	**3.3**	-14.3%	-1.5%	0.1%
Singapore	8.3	8.9	10.0	10.4	11.6	11.9	12.3	12.3	12.5	12.6	**13.4**	6.3%	4.9%	0.3%
South Korea	48.4	52.5	55.0	50.0	45.6	47.6	49.8	57.8	56.0	57.5	**62.5**	9.0%	2.6%	1.5%
Sri Lanka	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Taiwan	17.0	17.9	17.9	18.9	20.2	21.0	23.2	23.7	23.3	24.9	**27.3**	10.0%	4.8%	0.7%
Thailand	44.3	48.6	48.9	49.9	51.0	50.6	50.1	50.0	50.9	46.9	**47.0**	0.6%	0.6%	1.2%
Vietnam	8.2	9.0	9.4	9.9	10.3	10.2	9.5	9.7	9.8	8.8	**7.1**	-19.2%	-1.4%	0.2%
Other Asia Pacific	6.9	8.5	8.2	9.7	10.9	10.4	10.7	10.8	11.3	11.6	**11.0**	-4.7%	4.8%	0.3%
Total Asia Pacific	620.1	662.0	685.7	705.5	715.7	732.7	772.0	830.5	860.4	866.9	**918.3**	6.2%	4.0%	22.7%
Total World	**3234.0**	**3319.4**	**3373.0**	**3394.4**	**3476.9**	**3556.1**	**3652.9**	**3835.6**	**3906.3**	**3845.6**	**4037.5**	**5.3%**	**2.2%**	**100.0%**
of which: OECD	1546.9	1583.2	1616.1	1590.7	1623.5	1656.1	1677.8	1762.6	1803.0	1758.6	**1794.9**	2.3%	1.5%	44.5%
Non-OECD	1687.1	1736.2	1756.9	1803.8	1853.3	1899.9	1975.2	2073.0	2103.3	2087.0	**2242.6**	7.8%	2.9%	55.5%
European Union	389.0	382.2	374.5	331.4	346.7	368.2	385.2	378.1	391.8	380.3	**396.6**	4.6%	0.2%	9.8%

Source: includes data from Cedigaz, FGE MENA natural gas service.

*Excludes natural gas converted to liquid fuels but includes derivatives of coal as well as natural gas consumed in gas-to-liquids transformation.
◆Less than 0.05%.
Notes: As far as possible, the data above represents standard cubic metres (measured at 15°C and 1013 mbar); as they are derived directly from measures of energy content using an average conversion factor and have been standardized using a gross calorific value (GCV) of 40 MJ/m³, they do not necessarily equate with gas volumes expressed in specific national terms.
The difference between these world consumption figures and the world production statistics is due to variations in stocks at storage facilities and liquefaction plants, together with unavoidable disparities in the definition, measurement or conversion of gas supply and demand data.
Growth rates are adjusted for leap years.
Annual changes and shares of total are calculated using billion cubic metres figures.

Natural gas: Consumption in exajoules*

Exajoules	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Growth rate per annum 2021	Growth rate per annum 2011-21	Share 2021
Canada	3.62	3.58	3.80	3.95	3.97	3.78	3.96	4.16	4.22	4.08	**4.29**	5.5%	1.7%	3.0%
Mexico	2.55	2.65	2.80	2.84	2.91	2.99	3.10	3.15	3.17	3.01	**3.18**	5.7%	2.2%	2.2%
US	23.70	24.77	25.45	26.00	26.77	26.97	26.64	29.58	30.62	29.95	**29.76**	-0.4%	2.3%	20.5%
Total North America	29.86	31.00	32.05	32.79	33.65	33.74	33.69	36.90	38.01	37.04	**37.23**	0.8%	2.2%	25.6%
Argentina	1.58	1.64	1.66	1.66	1.68	1.74	1.74	1.75	1.68	1.58	**1.65**	4.8%	0.5%	1.1%
Brazil	0.99	1.17	1.38	1.46	1.55	1.34	1.35	1.29	1.29	1.13	**1.46**	29.1%	3.9%	1.0%
Chile	0.21	0.19	0.19	0.16	0.17	0.21	0.20	0.20	0.23	0.22	**0.23**	0.9%	0.7%	0.2%
Colombia	0.31	0.34	0.38	0.41	0.40	0.43	0.43	0.46	0.46	0.47	**0.45**	-3.5%	4.0%	0.3%
Ecuador	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	**0.02**	-0.1%	-0.2%	♦
Peru	0.23	0.25	0.24	0.27	0.28	0.31	0.27	0.29	0.30	0.26	**0.29**	12.8%	2.5%	0.2%
Trinidad & Tobago	0.74	0.73	0.73	0.74	0.71	0.61	0.66	0.63	0.63	0.55	**0.56**	3.0%	-2.7%	0.4%
Venezuela	1.20	1.25	1.16	1.22	1.33	1.34	1.39	1.14	0.92	0.78	**0.86**	11.5%	-3.2%	0.6%
Central America	–	–	–	–	–	–	–	0.01	0.02	0.01	**0.01**	-20.9%	–	♦
Other Caribbean	0.10	0.12	0.13	0.13	0.13	0.14	0.13	0.15	0.18	0.17	**0.22**	30.7%	8.1%	0.1%
Other South America	0.11	0.11	0.12	0.13	0.12	0.13	0.13	0.13	0.14	0.11	**0.13**	17.3%	1.8%	0.1%
Total S. & Cent. America	5.48	5.82	6.02	6.21	6.40	6.27	6.33	6.07	5.86	5.30	**5.88**	11.3%	0.7%	4.0%
Austria	0.33	0.31	0.30	0.27	0.29	0.30	0.33	0.31	0.32	0.31	**0.32**	6.0%	♦	0.2%
Belgium	0.59	0.60	0.60	0.52	0.57	0.58	0.59	0.61	0.63	0.61	**0.61**	0.1%	0.3%	0.4%
Bulgaria	0.11	0.10	0.10	0.10	0.11	0.11	0.12	0.11	0.10	0.11	**0.12**	13.4%	0.8%	0.1%
Croatia	0.11	0.10	0.10	0.08	0.09	0.09	0.10	0.10	0.10	0.11	**0.10**	-3.5%	-0.6%	0.1%
Cyprus	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Czech Republic	0.29	0.29	0.29	0.26	0.27	0.29	0.30	0.29	0.30	0.30	**0.33**	7.5%	1.4%	0.2%
Denmark	0.16	0.15	0.14	0.12	0.12	0.12	0.12	0.11	0.10	0.08	**0.08**	♦	-6.1%	0.1%
Estonia	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	**0.02**	13.3%	-1.8%	♦
Finland	0.13	0.12	0.11	0.10	0.08	0.07	0.07	0.08	0.07	0.07	**0.07**	-1.2%	-5.5%	0.1%
France	1.55	1.60	1.63	1.36	1.47	1.60	1.61	1.54	1.57	1.46	**1.55**	6.3%	♦	1.1%
Germany	2.91	2.92	3.06	2.66	2.77	3.06	3.16	3.09	3.21	3.14	**3.26**	4.2%	1.1%	2.2%
Greece	0.17	0.15	0.13	0.10	0.11	0.14	0.17	0.17	0.19	0.23	**0.25**	10.4%	4.3%	0.2%
Hungary	0.39	0.35	0.33	0.29	0.31	0.34	0.36	0.35	0.35	0.37	**0.39**	6.1%	-0.1%	0.3%
Iceland	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Ireland	0.17	0.17	0.16	0.16	0.16	0.18	0.18	0.19	0.19	0.19	**0.18**	-3.8%	0.6%	0.1%
Italy	2.67	2.57	2.40	2.12	2.32	2.43	2.58	2.49	2.55	2.43	**2.61**	7.5%	-0.2%	1.8%
Latvia	0.05	0.05	0.05	0.05	0.05	0.05	0.04	0.05	0.05	0.04	**0.04**	8.3%	-2.7%	♦
Lithuania	0.11	0.11	0.09	0.09	0.09	0.08	0.08	0.08	0.08	0.08	**0.08**	-5.3%	-3.4%	0.1%
Luxembourg	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03	**0.03**	7.2%	-4.3%	♦
Netherlands	1.47	1.41	1.41	1.24	1.23	1.27	1.30	1.28	1.33	1.30	**1.26**	-2.7%	-1.5%	0.9%
North Macedonia	†	†	0.01	†	†	0.01	0.01	0.01	0.01	0.01	**0.01**	26.4%	12.3%	♦
Norway	0.15	0.14	0.14	0.15	0.16	0.16	0.17	0.16	0.16	0.16	**0.15**	-2.5%	0.6%	0.1%
Poland	0.59	0.63	0.63	0.61	0.62	0.66	0.69	0.72	0.75	0.76	**0.84**	10.7%	3.5%	0.6%
Portugal	0.19	0.16	0.16	0.15	0.17	0.18	0.23	0.21	0.22	0.22	**0.21**	-2.6%	1.1%	0.1%
Romania	0.46	0.45	0.41	0.39	0.37	0.38	0.41	0.42	0.39	0.41	**0.41**	1.8%	-1.2%	0.3%
Slovakia	0.19	0.18	0.19	0.16	0.16	0.16	0.17	0.17	0.17	0.17	**0.19**	12.2%	-0.1%	0.1%
Slovenia	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	**0.03**	5.6%	0.5%	♦
Spain	1.21	1.20	1.09	0.99	1.03	1.05	1.14	1.13	1.30	1.17	**1.22**	4.6%	0.1%	0.8%
Sweden	0.04	0.04	0.04	0.03	0.03	0.04	0.03	0.04	0.04	0.05	**0.05**	2.9%	0.7%	♦
Switzerland	0.11	0.12	0.13	0.11	0.12	0.13	0.13	0.12	0.12	0.12	**0.13**	9.0%	1.5%	0.1%
Turkey	1.51	1.56	1.58	1.68	1.65	1.60	1.86	1.70	1.56	1.66	**2.06**	24.4%	3.2%	1.4%
Ukraine	2.02	1.87	1.72	1.45	1.15	1.13	1.09	1.10	1.02	1.06	**0.94**	-10.8%	-7.4%	0.6%
United Kingdom	2.95	2.77	2.75	2.52	2.59	2.90	2.83	2.83	2.80	2.63	**2.77**	5.7%	-0.6%	1.9%
Other Europe	0.15	0.14	0.15	0.15	0.16	0.17	0.19	0.19	0.20	0.20	**0.22**	14.8%	4.0%	0.2%
Total Europe	20.90	20.37	19.96	18.00	18.33	19.35	20.12	19.71	19.96	19.51	**20.56**	5.7%	-0.2%	14.1%
Azerbaijan	0.32	0.34	0.34	0.35	0.40	0.39	0.38	0.39	0.42	0.45	**0.46**	3.1%	3.6%	0.3%
Belarus	0.69	0.70	0.69	0.69	0.64	0.64	0.66	0.70	0.69	0.64	**0.69**	7.5%	-0.1%	0.5%
Kazakhstan	0.36	0.39	0.40	0.46	0.46	0.48	0.51	0.59	0.60	0.63	**0.55**	-12.9%	4.4%	0.4%
Russian Federation	15.68	15.43	15.30	15.20	14.71	15.14	15.52	16.36	16.00	15.25	**17.09**	12.4%	0.9%	11.8%
Turkmenistan	0.75	0.83	0.70	0.72	0.91	0.90	0.89	1.02	1.14	1.07	**1.32**	24.2%	5.9%	0.9%
Uzbekistan	1.70	1.66	1.66	1.75	1.67	1.56	1.61	1.60	1.61	1.57	**1.67**	6.9%	-0.2%	1.1%
Other CIS	0.20	0.21	0.17	0.19	0.19	0.19	0.18	0.21	0.20	0.21	**0.22**	6.1%	1.3%	0.2%
Total CIS	19.70	19.55	19.26	19.36	18.99	19.31	19.75	20.87	20.65	19.80	**21.99**	11.4%	1.1%	15.1%
Iran	5.51	5.49	5.54	6.24	6.62	7.07	7.38	7.66	7.86	8.43	**8.68**	3.2%	4.6%	6.0%
Iraq	0.23	0.23	0.25	0.27	0.26	0.36	0.41	0.53	0.70	0.67	**0.62**	-7.3%	10.5%	0.4%
Israel	0.17	0.09	0.24	0.26	0.29	0.33	0.36	0.38	0.39	0.41	**0.42**	3.5%	9.4%	0.3%
Kuwait	0.57	0.63	0.64	0.64	0.73	0.76	0.76	0.76	0.84	0.80	**0.90**	13.5%	4.7%	0.6%
Oman	0.65	0.71	0.78	0.77	0.83	0.82	0.84	0.90	0.90	0.93	**1.06**	14.2%	5.0%	0.7%
Qatar	1.04	1.21	1.27	1.38	1.56	1.49	1.48	1.47	1.51	1.40	**1.44**	3.1%	3.3%	1.0%
Saudi Arabia	3.16	3.40	3.42	3.50	3.57	3.79	3.93	4.04	4.00	4.07	**4.22**	4.0%	3.0%	2.9%
United Arab Emirates	2.22	2.30	2.33	2.28	2.57	2.59	2.61	2.56	2.56	2.51	**2.50**	♦	1.2%	1.7%
Other Middle East	0.79	0.74	0.77	0.75	0.81	0.83	0.84	0.79	0.84	0.84	**0.87**	4.9%	0.9%	0.6%
Total Middle East	14.35	14.80	15.24	16.11	17.26	18.04	18.61	19.08	19.59	20.05	**20.72**	3.6%	3.7%	14.3%
Algeria	0.96	1.08	1.16	1.30	1.37	1.39	1.42	1.56	1.62	1.57	**1.65**	5.4%	5.5%	1.1%
Egypt	1.72	1.82	1.78	1.66	1.66	1.78	2.01	2.15	2.13	2.10	**2.23**	6.4%	2.6%	1.5%
Morocco	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.03	**0.03**	0.9%	-1.4%	♦
South Africa	0.15	0.16	0.15	0.15	0.16	0.13	0.14	0.16	0.15	0.14	**0.14**	-2.7%	-1.0%	0.1%
Eastern Africa	0.03	0.04	0.04	0.05	0.06	0.07	0.07	0.08	0.09	0.08	**0.10**	16.2%	10.8%	0.1%
Middle Africa	0.11	0.13	0.15	0.14	0.16	0.20	0.20	0.20	0.18	0.19	**0.22**	16.5%	7.5%	0.2%
Western Africa	0.44	0.47	0.46	0.57	0.86	0.76	0.79	0.85	0.87	0.93	**1.01**	8.5%	8.6%	0.7%
Other Northern Africa	0.37	0.39	0.44	0.41	0.48	0.56	0.53	0.53	0.50	0.49	**0.55**	13.5%	4.2%	0.4%
Other Southern Africa	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Total Africa	3.82	4.13	4.21	4.33	4.77	4.93	5.22	5.56	5.58	5.53	**5.92**	7.3%	4.5%	4.1%
Australia	1.18	1.19	1.25	1.34	1.40	1.36	1.34	1.32	1.58	1.55	**1.42**	-8.3%	1.9%	1.0%
Bangladesh	0.70	0.77	0.79	0.83	0.93	0.95	0.96	0.99	1.11	1.08	**1.12**	4.3%	4.7%	0.8%
China	4.87	5.43	6.19	6.78	7.01	7.54	8.69	10.22	11.10	12.12	**13.63**	12.8%	10.9%	9.4%
China Hong Kong SAR	0.10	0.09	0.09	0.09	0.11	0.11	0.11	0.11	0.11	0.18	**0.17**	-2.1%	5.4%	0.1%
India	2.17	2.01	1.76	1.75	1.72	1.83	1.93	2.09	2.13	2.18	**2.24**	3.1%	0.3%	1.5%
Indonesia	1.54	1.55	1.60	1.59	1.65	1.61	1.56	1.60	1.58	1.35	**1.33**	-0.9%	-1.4%	0.9%
Japan	4.03	4.44	4.45	4.49	4.27	4.19	4.21	4.17	3.89	3.75	**3.73**	-0.2%	-0.8%	2.6%
Malaysia	1.38	1.51	1.60	1.61	1.69	1.62	1.62	1.61	1.63	1.38	**1.48**	7.5%	0.7%	1.0%
New Zealand	0.14	0.16	0.17	0.19	0.17	0.17	0.18	0.16	0.17	0.16	**0.14**	-14.9%	-0.4%	0.1%
Pakistan	1.27	1.32	1.28	1.26	1.32	1.39	1.47	1.57	1.60	1.48	**1.61**	9.1%	2.4%	1.1%
Philippines	0.14	0.13	0.12	0.13	0.12	0.14	0.14	0.15	0.15	0.14	**0.12**	-14.3%	-1.5%	0.1%
Singapore	0.30	0.32	0.36	0.37	0.42	0.43	0.44	0.44	0.45	0.45	**0.48**	6.3%	4.9%	0.3%
South Korea	1.74	1.89	1.98	1.80	1.64	1.72	1.79	2.08	2.02	2.07	**2.25**	9.0%	2.6%	1.5%
Sri Lanka	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Taiwan	0.61	0.64	0.65	0.68	0.73	0.75	0.84	0.85	0.84	0.90	**0.98**	10.0%	4.8%	0.7%
Thailand	1.60	1.75	1.76	1.80	1.83	1.82	1.80	1.80	1.83	1.69	**1.69**	0.6%	0.6%	1.2%
Vietnam	0.29	0.32	0.34	0.35	0.37	0.37	0.34	0.35	0.35	0.32	**0.26**	-19.2%	-1.4%	0.2%
Other Asia Pacific	0.25	0.31	0.30	0.35	0.39	0.38	0.38	0.39	0.41	0.42	**0.40**	-4.7%	4.8%	0.3%
Total Asia Pacific	22.32	23.83	24.69	25.40	25.77	26.38	27.79	29.90	30.97	31.21	**33.06**	6.2%	4.0%	22.7%
Total World	**116.42**	**119.50**	**121.43**	**122.20**	**125.17**	**128.02**	**131.51**	**138.08**	**140.63**	**138.44**	**145.35**	**5.3%**	**2.2%**	**100.0%**
of which: OECD	55.69	56.99	58.18	57.26	58.45	59.62	60.40	63.45	64.91	63.31	**64.62**	2.3%	1.5%	44.5%
Non-OECD	60.74	62.50	63.25	64.94	66.72	68.40	71.11	74.63	75.72	75.13	**80.73**	7.8%	2.9%	55.5%
European Union	14.01	13.76	13.48	11.93	12.48	13.25	13.87	13.61	14.11	13.69	**14.28**	4.6%	0.2%	9.8%

Source: includes data from Cedigaz, FGE MENA natural gas service.

*Excludes natural gas converted to liquid fuels but includes derivatives of coal as well as natural gas consumed in gas-to-liquids transformation.
†Less than 0.005.
♦Less than 0.05%.
Notes: The difference between these world consumption figures and the world production statistics is due to variations in stocks at storage facilities and liquefaction plants, together with unavoidable disparities in the definition, measurement or conversion of gas supply and demand data.
Growth rates are adjusted for leap years.
Annual changes and share of total are calculated using exajoules figures.

Prices

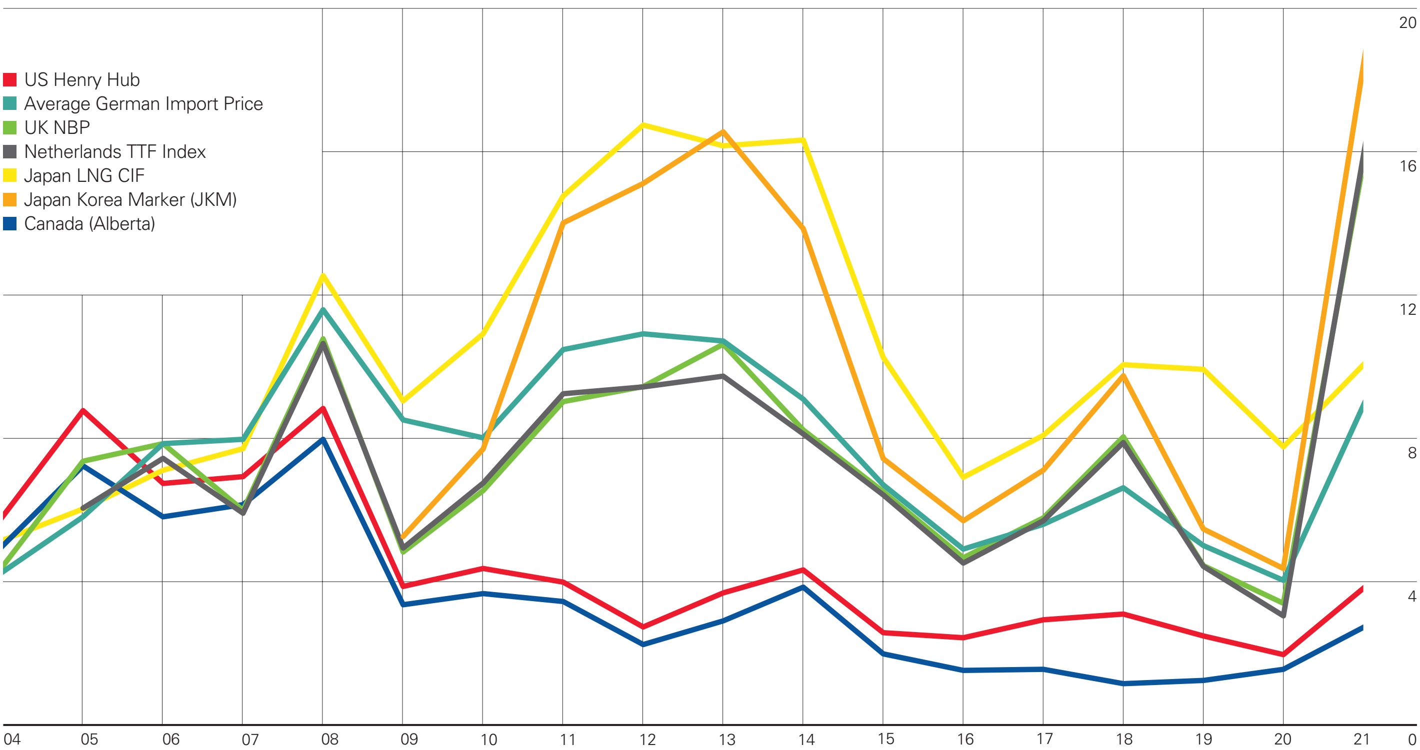
US dollars per million Btu	LNG Japan CIF[1]	LNG Japan Korea Marker (JKM)[2]	Natural gas Average German Import Price[3]	Natural gas UK (Heren NBP Index)[4]	Natural gas Netherlands TTF (DA Heren Index)[4]	Natural gas US Henry Hub[5]	Natural gas Canada (Alberta)[5]	Crude oil OECD countries CIF[6]
1984	5.10	–	4.00	–	–	–	–	5.00
1985	5.23	–	4.25	–	–	–	–	4.75
1986	4.10	–	3.93	–	–	–	–	2.57
1987	3.35	–	2.55	–	–	–	–	3.09
1988	3.34	–	2.22	–	–	–	–	2.56
1989	3.28	–	2.00	–	–	1.70	–	3.01
1990	3.64	–	2.78	–	–	1.64	1.05	3.82
1991	3.99	–	3.23	–	–	1.49	0.89	3.33
1992	3.62	–	2.70	–	–	1.77	0.98	3.19
1993	3.52	–	2.51	–	–	2.12	1.69	2.82
1994	3.18	–	2.35	–	–	1.92	1.45	2.70
1995	3.46	–	2.43	–	–	1.69	0.89	2.96
1996	3.66	–	2.50	1.87	–	2.76	1.12	3.54
1997	3.91	–	2.66	1.96	–	2.53	1.36	3.29
1998	3.05	–	2.33	1.86	–	2.08	1.42	2.16
1999	3.14	–	1.86	1.58	–	2.27	2.00	2.98
2000	4.72	–	2.91	2.71	–	4.23	3.75	4.83
2001	4.64	–	3.67	3.17	–	4.07	3.61	4.08
2002	4.27	–	3.21	2.37	–	3.33	2.57	4.17
2003	4.77	–	4.06	3.33	–	5.63	4.83	4.89
2004	5.18	–	4.30	4.46	–	5.85	5.03	6.27
2005	6.05	–	5.83	7.38	6.07	8.79	7.25	8.74
2006	7.13	–	7.87	7.87	7.46	6.76	5.83	10.66
2007	7.73	–	7.99	6.01	5.93	6.95	6.17	11.95
2008	12.55	–	11.60	10.79	10.66	8.85	7.99	16.76
2009	9.06	5.28	8.53	4.85	4.96	3.89	3.38	10.41
2010	10.93	7.72	8.03	6.56	6.77	4.39	3.69	13.47
2011	14.77	14.02	10.49	9.04	9.26	4.01	3.47	18.55
2012	16.75	15.12	10.93	9.46	9.45	2.76	2.27	18.82
2013	16.17	16.56	10.73	10.64	9.75	3.71	2.93	18.25
2014	16.33	13.86	9.11	8.25	8.14	4.35	3.87	16.80
2015	10.27	7.45	6.72	6.53	6.44	2.60	2.01	8.77
2016	6.93	5.72	4.93	4.69	4.54	2.46	1.55	7.04
2017	8.10	7.13	5.62	5.80	5.72	2.96	1.58	8.97
2018	10.07	9.76	6.64	8.06	7.90	3.12	1.18	11.68
2019	9.94	5.49	5.03	4.47	4.45	2.51	1.27	10.82
2020	7.78	4.39	4.06	3.42	3.07	1.99	1.58	7.27
2021	10.07	18.60	8.94	15.80	16.02	3.84	2.75	11.82

[1]Source: EDMC Energy Trend, bp analysis.
[2]Source: S&P Global Platts ©2021, S&P Global Inc.
[3]Source: 1986-1990 German Federal Statistical Office, 1991-2021 German Federal Office of Economics and Export Control (BAFA).
[4]Source: ICIS Heren Energy Ltd.
[5]Source: Energy Intelligence Group, *Natural Gas Week*.
[6]Source: ©OECD/IEA 2021, Oil, Gas, Coal and Electricity, Quarterly Statistics *www.iea.org/statistics*.

Note: CIF = cost+insurance+freight (average prices).

Prices

$/mmBtu



Natural gas: Inter-regional trade

Billion cubic metres	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	**2021**	Growth rate per annum 2021	Growth rate per annum 2011-21	Share 2021
US														
Pipeline imports	85.0	80.8	75.9	71.8	71.6	79.5	80.5	76.6	73.3	68.2	**75.9**	11.7%	-1.1%	7.4%
LNG imports	9.9	4.9	2.7	1.7	2.5	2.4	2.2	2.1	1.5	1.3	**0.6**	-54.3%	-24.6%	0.1%
Total imports	94.9	85.6	78.6	73.5	74.1	82.0	82.7	78.8	74.7	69.5	**76.5**	10.4%	-2.1%	7.5%
Pipeline exports	39.1	45.3	42.5	40.4	47.2	58.7	65.7	67.8	77.4	78.9	**84.3**	7.2%	8.0%	8.2%
LNG exports*	1.8	0.8	0.2	0.4	0.7	4.0	17.1	28.6	47.4	61.3	**95.0**	55.4%	49.1%	9.3%
Total exports	40.9	46.1	42.7	40.8	47.9	62.7	82.8	96.3	124.8	140.2	**179.3**	28.3%	15.9%	17.5%
Other North America														
Pipeline imports	39.1	45.3	42.5	40.4	47.2	58.7	65.7	67.8	77.4	78.9	**84.3**	7.2%	8.0%	8.2%
LNG imports	7.0	6.5	8.8	9.8	7.4	5.9	7.0	7.5	7.1	3.4	**1.6**	-51.8%	-13.6%	0.2%
Total imports	46.1	51.7	51.3	50.2	54.7	64.5	72.7	75.3	84.5	82.2	**85.9**	4.8%	6.4%	8.4%
Pipeline exports	85.0	80.8	75.9	71.8	71.6	79.5	80.5	76.6	73.3	68.2	**75.9**	11.7%	-1.1%	7.4%
LNG exports*	0.1	–	–	†	†	†	†	0.1	†	†	**†**	-5.6%	-23.6%	◆
Total exports	85.1	80.8	75.9	71.9	71.6	79.6	80.6	76.7	73.3	68.2	**75.9**	11.7%	-1.1%	7.4%
Brazil														
Pipeline imports	9.3	9.5	11.0	11.4	11.2	9.8	8.4	7.6	6.4	6.2	**7.1**	15.0%	-2.6%	0.7%
LNG imports	0.7	3.5	5.2	7.1	6.8	2.6	1.7	2.9	3.2	3.3	**10.1**	203.8%	31.2%	1.0%
Total imports	9.9	13.0	16.3	18.5	18.0	12.4	10.1	10.5	9.7	9.5	**17.2**	81.2%	5.7%	1.7%
LNG exports*	–	0.5	0.1	0.2	†	0.6	0.2	0.1	–	–	**0.1**	–	–	◆
Total exports	–	0.5	0.1	0.2	†	0.6	0.2	0.1	–	–	**0.1**	–	–	◆
Other S&C America														
LNG imports	9.3	11.1	12.9	12.5	12.1	12.6	11.7	11.6	9.9	10.5	**14.3**	35.9%	4.4%	1.4%
Total imports	9.3	11.1	12.9	12.5	12.1	12.6	11.7	11.6	9.9	10.5	**14.3**	35.9%	4.4%	1.4%
Pipeline exports	9.3	9.5	11.0	11.4	11.2	9.8	8.4	7.6	6.4	6.2	**7.1**	15.0%	-2.6%	0.7%
LNG exports*	23.4	23.4	24.1	23.3	21.4	19.9	19.1	21.4	22.5	19.8	**13.16**	-33.5%	-5.6%	1.3%
Total exports	32.7	32.9	35.1	34.7	32.6	29.7	27.5	29.0	28.9	26.0	**20.3**	-21.9%	-4.7%	2.0%
Europe														
Pipeline imports	234.4	228.5	234.1	209.4	214.9	230.6	247.4	247.3	236.7	210.5	**232.8**	10.9%	-0.1%	22.8%
of which: Russia	186.0	177.0	187.3	164.0	169.4	176.3	193.2	193.2	191.3	166.9	**167.0**	0.3%	-1.1%	16.3%
Africa	34.4	38.5	33.3	29.1	29.8	38.7	37.2	37.3	26.5	25.2	**37.2**	48.1%	0.8%	3.6%
Other CIS	5.7	4.7	5.2	7.6	8.1	8.2	8.1	9.2	11.5	13.3	**19.5**	47.0%	13.1%	1.9%
Middle East	8.3	8.2	8.2	8.7	7.5	7.4	8.9	7.6	7.4	5.1	**9.1**	77.8%	0.9%	0.9%
LNG imports	89.2	68.2	51.8	52.1	56.0	56.4	64.8	71.2	119.4	116.3	**108.2**	-6.6%	2.0%	10.6%
Total imports	323.6	296.7	285.8	261.4	270.9	287.0	312.2	318.5	356.1	326.8	**341.0**	4.6%	0.5%	33.4%
LNG exports*	6.1	8.1	9.0	13.0	11.0	10.6	7.9	11.7	8.8	7.0	**3.8**	-45.9%	-4.6%	0.4%
Total exports	6.1	8.1	9.0	13.0	11.0	10.6	7.9	11.7	8.8	7.0	**3.8**	-45.8%	-4.6%	0.4%
Russia														
Pipeline imports	41.2	39.7	32.9	33.1	26.5	24.3	28.6	24.6	30.3	10.4	**15.1**	45.6%	-9.5%	1.5%
Total imports	41.2	39.7	32.9	33.1	26.5	24.3	28.6	24.6	30.3	10.4	**15.1**	45.6%	-9.5%	1.5%
Pipeline exports	210.6	201.5	210.7	189.6	194.2	202.0	219.7	222.4	220.7	197.1	**201.7**	2.6%	-0.4%	19.7%
of which: Europe	186.0	177.0	187.3	164.0	169.4	176.3	193.2	193.2	191.3	166.9	**167.0**	0.3%	-1.1%	16.3%
Other CIS	24.6	24.5	23.3	25.6	24.8	25.7	26.5	29.2	29.2	26.3	**27.1**	3.2%	1.0%	2.7%
LNG exports	14.3	14.3	14.5	13.6	14.6	14.6	15.4	24.9	39.1	41.8	**39.6**	-4.9%	10.7%	3.9%
Total exports	224.9	215.8	225.2	203.2	208.8	216.7	235.2	247.3	259.8	238.9	**241.3**	1.3%	0.7%	23.6%
Other CIS														
Pipeline imports	25.4	25.2	24.0	26.3	25.4	26.3	28.6	30.4	29.8	26.9	**27.6**	3.0%	0.8%	2.7%
Total imports	25.4	25.2	24.0	26.3	25.4	26.3	28.6	30.4	29.8	26.9	**27.6**	3.0%	0.8%	2.7%
Pipeline exports	71.8	69.7	69.5	75.4	72.6	72.8	78.0	80.8	85.2	61.2	**76.5**	25.4%	0.6%	7.5%
of which: China	13.6	20.8	26.2	27.4	28.7	33.0	36.7	45.0	43.0	37.3	**41.7**	12.3%	11.8%	4.1%
Europe	5.7	4.7	5.2	7.6	8.1	8.2	8.1	9.2	11.5	13.3	**19.5**	47.0%	13.1%	1.9%
Middle East	11.4	4.5	5.2	7.3	9.3	7.3	4.6	2.0	0.4	0.2	**0.2**	-18.4%	-34.5%	◆
Russia	41.2	39.7	32.9	33.1	26.5	24.3	28.6	24.6	30.3	10.4	**15.1**	45.6%	-9.5%	1.5%
Total exports	71.8	69.7	69.5	75.4	72.6	72.8	78.0	80.8	85.2	61.2	**76.5**	25.4%	0.6%	7.5%
Middle East														
Pipeline imports	13.0	5.3	6.3	7.6	9.6	7.3	4.6	2.1	1.6	0.6	**0.9**	45.9%	-23.4%	0.1%
of which: Africa	1.6	0.8	1.1	0.3	0.3	–	–	0.1	1.2	0.4	**0.7**	76.6%	-7.7%	0.1%
Other CIS	11.4	4.5	5.2	7.3	9.3	7.3	4.6	2.0	0.4	0.2	**0.2**	-18.4%	-34.5%	◆
LNG imports	4.4	4.2	4.3	5.3	9.8	13.7	13.0	9.4	9.4	9.1	**9.6**	5.8%	8.0%	0.9%
Total imports	17.4	9.4	10.6	12.9	19.4	21.1	17.7	11.5	11.0	9.7	**10.5**	8.4%	-5.0%	1.0%
Pipeline exports	9.1	9.0	8.9	9.3	8.1	8.0	11.0	8.8	8.0	7.7	**13.4**	73.6%	3.9%	1.3%
LNG exports	128.7	130.3	135.2	132.2	125.4	126.0	122.3	125.9	127.5	127.3	**129.7**	2.2%	0.1%	12.7%
Total exports	137.9	139.3	144.2	141.5	133.5	133.9	133.2	134.8	135.6	135.0	**143.1**	6.3%	0.4%	14.0%
Africa														
Pipeline imports	–	–	–	–	–	–	–	–	–	2.1	**3.8**	85.6%	–	0.4%
LNG imports	–	–	–	–	3.9	10.7	8.3	3.2	–	–	**–**	–	–	–
Total imports	–	–	–	–	3.9	10.7	8.3	3.2	–	2.1	**3.8**	85.6%	–	0.4%
Pipeline exports	36.1	39.3	34.4	29.4	30.1	38.7	37.2	37.5	27.7	25.6	**38.0**	48.6%	0.5%	3.7%
of which: Europe	34.4	38.5	33.3	29.1	29.8	38.7	37.2	37.3	26.5	25.2	**37.2**	48.1%	0.8%	3.6%
Middle East	1.6	0.8	1.1	0.3	0.3	–	–	0.1	1.2	0.4	**0.7**	76.6%	-7.7%	0.1%
LNG exports	56.4	54.2	47.0	49.5	48.5	46.2	55.7	53.5	61.6	56.0	**58.5**	4.7%	0.4%	5.7%
Total exports	92.4	93.5	81.4	78.8	78.6	84.9	92.9	90.9	89.4	81.7	**96.5**	18.5%	0.4%	9.4%
China														
Pipeline imports	13.6	20.8	26.4	30.3	32.4	36.8	39.9	47.9	47.7	45.1	**53.2**	18.5%	14.6%	5.2%
of which: Other Asia	–	–	0.2	2.9	3.8	3.7	3.2	2.9	4.4	3.9	**3.9**	0.6%	–	0.4%
Russia	–	–	–	–	–	–	–	–	0.3	3.9	**7.6**	96.0%	–	0.7%
Other CIS	13.6	20.8	26.2	27.4	28.7	33.0	36.7	45.0	43.0	37.3	**41.7**	12.3%	11.8%	4.1%
LNG imports	16.9	20.1	25.1	27.3	27.0	36.8	52.9	73.5	84.7	94.0	**109.5**	16.8%	20.6%	10.7%
Total imports	30.5	40.8	51.5	57.5	59.4	73.5	92.8	121.3	132.5	139.1	**162.7**	17.3%	18.2%	15.9%
LNG exports*	–	–	–	–	–	–	–	–	0.1	–	**–**	–	–	–
Total exports	–	–	–	–	–	–	–	–	0.1	–	**–**	–	–	–
India														
LNG imports	17.4	18.4	18.0	19.1	20.0	24.3	26.0	30.5	32.4	36.7	**33.6**	-8.1%	6.8%	3.3%
Total imports	17.4	18.4	18.0	19.1	20.0	24.3	26.0	30.5	32.4	36.7	**33.6**	-8.1%	6.8%	3.3%
LNG exports*	–	–	–	–	0.4	0.1	0.1	–	0.1	–	**–**	–	–	–
Total exports	–	–	–	–	0.4	0.1	0.1	–	0.1	–	**–**	–	–	–
OECD Asia														
Pipeline imports	5.3	5.0	5.9	5.2	5.8	5.5	4.9	4.9	4.3	5.3	**4.8**	-9.3%	-1.0%	0.5%
LNG imports	156.3	169.6	175.7	173.6	161.6	159.9	165.4	173.2	161.1	157.2	**165.5**	5.6%	0.6%	16.2%
Total imports	161.6	174.6	181.6	178.8	167.4	165.3	170.2	178.1	165.5	162.5	**170.2**	5.1%	0.5%	16.7%
LNG exports*	26.0	28.3	30.6	32.2	40.1	60.5	76.8	91.9	104.7	106.1	**108.3**	2.3%	15.3%	10.6%
Total exports	26.0	28.3	30.6	32.2	40.1	60.5	76.8	91.9	104.7	106.1	**108.3**	2.3%	15.3%	10.6%
Other Asia														
LNG imports	17.3	18.5	22.4	25.2	29.8	33.0	40.2	45.5	55.3	58.4	**63.2**	8.6%	13.8%	6.2%
Total imports	17.3	18.5	22.4	25.2	29.8	33.0	40.2	45.5	55.3	58.4	**63.2**	8.6%	13.8%	6.2%
Pipeline exports	5.3	5.0	6.1	8.1	9.5	9.2	8.1	7.8	8.7	9.2	**8.7**	-5.1%	5.1%	0.9%
of which: China	–	–	0.2	2.9	3.8	3.7	3.2	2.9	4.4	3.9	**3.9**	0.6%	–	0.4%
OECD Asia	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
LNG exports*	71.5	65.0	66.2	69.3	75.0	75.8	78.5	72.4	72.4	70.8	**68.1**	-3.6%	-0.5%	6.7%
Total exports	76.8	70.0	72.3	77.5	84.5	85.0	86.6	80.2	81.1	80.0	**76.8**	-3.8%	◆	7.5%
World														
Inter-regional pipeline trade	466.3	460.0	459.0	435.4	444.6	478.7	508.7	509.3	507.5	454.1	**505.6**	11.6%	0.8%	49.5%
LNG trade	328.3	324.9	326.8	333.6	337.1	358.3	393.3	430.4	484.2	490.1	**516.2**	5.6%	4.6%	50.5%
Total trade	**794.6**	**784.9**	**785.9**	**769.1**	**781.7**	**836.9**	**902.0**	**939.7**	**991.6**	**944.3**	**1021.9**	**8.5%**	**2.5%**	**100.0%**

*LNG exports include re-exports.
†Less than 0.05.
◆Less than 0.05%.

Source: statistics are taken from national statistical agencies, international organizations, and other proprietary sources.

Notes: As far as possible, the data above represents standard cubic metres (measured at 15°C and 1013 mbar) and have been standardized using a gross calorific value (GCV) of 40 MJ/m³.
Growth rates are adjusted for leap years.

Natural gas: LNG imports

Billion cubic metres	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	**2021**	Growth rate per annum 2021	Growth rate per annum 2011-21	Share 2021
Canada	3.2	1.6	1.0	0.5	0.6	0.3	0.4	0.6	0.5	0.8	**0.7**	-14.7%	-13.9%	0.1%
Mexico	3.8	4.9	7.8	9.3	6.8	5.6	6.6	6.9	6.6	2.5	**0.9**	-64.3%	-13.4%	0.2%
US	9.9	4.9	2.7	1.7	2.5	2.4	2.2	2.1	1.5	1.3	**0.6**	-54.3%	-24.6%	0.1%
Total North America	16.8	11.4	11.4	11.5	10.0	8.3	9.2	9.6	8.6	4.6	**2.2**	-52.5%	-18.4%	0.4%
Argentina	3.7	4.7	6.3	6.2	5.6	5.1	4.6	3.6	1.8	1.8	**3.7**	108.8%	-0.1%	0.7%
Brazil	0.7	3.5	5.2	7.1	6.8	2.6	1.7	2.9	3.2	3.3	**10.1**	203.8%	31.2%	2.0%
Chile	3.7	4.0	3.8	3.5	3.7	4.5	4.4	4.3	3.3	3.7	**4.5**	22.0%	2.0%	0.9%
Other S. & Cent. America	1.9	2.4	2.8	2.8	2.8	3.0	2.8	3.7	4.8	5.1	**6.1**	20.5%	12.6%	1.2%
Total S. & Cent. America	9.9	14.6	18.1	19.6	18.9	15.2	13.5	14.5	13.1	13.9	**24.4**	76.4%	9.4%	4.7%
Belgium	6.3	4.1	3.1	2.9	3.6	2.4	1.3	3.3	7.3	6.4	**5.5**	-14.9%	-1.5%	1.1%
France	14.4	9.8	8.3	6.9	6.4	9.1	10.9	12.7	23.2	19.1	**18.1**	-5.2%	2.3%	3.5%
Italy	9.1	7.1	5.8	4.5	5.9	5.9	8.3	8.2	13.5	12.5	**9.5**	-23.7%	0.5%	1.8%
Spain	23.9	21.4	15.7	16.2	13.7	13.8	16.6	15.0	22.0	20.9	**20.8**	-0.4%	-1.4%	4.0%
Turkey	5.9	7.6	5.9	7.1	7.5	7.6	10.9	11.4	12.9	14.8	**13.9**	-5.9%	8.9%	2.7%
United Kingdom	24.7	13.9	9.2	11.2	13.7	10.7	6.6	7.2	17.1	18.6	**14.9**	-19.3%	-4.9%	2.9%
Other European Union	4.9	4.4	3.7	3.3	5.2	6.9	10.2	13.4	23.5	23.8	**25.5**	7.4%	18.0%	4.9%
Rest of Europe	–	†	–	†	–	†	0.1	†	†	0.1	**0.1**	-30.8%	–	◆
Total Europe	89.2	68.2	51.8	52.1	56.0	56.4	64.8	71.2	119.4	116.3	**108.2**	-6.6%	2.0%	21.0%
Egypt	–	–	–	–	3.9	10.7	8.3	3.2	–	–	**–**	–	–	–
Kuwait	3.0	2.8	2.3	3.6	4.3	4.7	4.8	4.3	5.1	5.7	**7.7**	35.5%	9.8%	1.5%
United Arab Emirates	1.4	1.4	1.6	1.6	2.9	4.2	3.0	1.0	1.6	1.5	**1.7**	9.8%	1.6%	0.3%
Other Middle East & Africa	–	–	0.5	0.1	2.7	4.8	5.3	4.0	2.7	1.9	**0.2**	-87.2%	–	◆
Total Middle East & Africa	4.4	4.2	4.3	5.3	13.7	24.5	21.4	12.5	9.4	9.1	**9.6**	5.8%	8.0%	1.9%
China	16.9	20.1	25.1	27.3	27.0	36.8	52.9	73.5	84.7	94.0	**109.5**	16.8%	20.6%	21.2%
India	17.4	18.4	18.0	19.1	20.0	24.3	26.0	30.5	32.4	36.7	**33.6**	-8.1%	6.8%	6.5%
Japan	108.6	119.8	120.4	121.8	115.9	113.6	113.9	113.0	105.5	101.7	**101.3**	-0.1%	-0.7%	19.6%
Malaysia	–	–	2.0	2.2	2.2	1.5	2.0	1.8	3.3	3.6	**2.5**	-32.4%	–	0.5%
Pakistan	–	–	–	–	1.5	4.0	6.1	9.4	11.8	10.6	**12.1**	14.9%	–	2.3%
Singapore	–	–	1.3	2.6	3.0	3.2	4.1	4.5	5.0	5.7	**5.1**	-10.4%	–	1.0%
South Korea	47.7	49.7	55.3	51.8	45.8	46.3	51.4	60.2	55.6	55.4	**64.1**	16.0%	3.0%	12.4%
Taiwan	16.3	17.1	17.2	18.6	19.6	20.4	22.7	22.9	22.8	24.3	**26.8**	10.4%	5.1%	5.2%
Thailand	1.1	1.4	2.0	1.9	3.6	3.9	5.2	6.0	6.7	7.5	**9.2**	22.4%	24.1%	1.8%
Other Asia Pacific	–	0.1	–	–	–	–	–	0.8	5.7	6.6	**7.6**	15.8%	–	1.5%
Total Asia Pacific	207.9	226.6	241.2	245.2	238.5	253.9	284.5	322.6	333.6	346.3	**371.8**	7.7%	6.0%	72.0%
Total LNG imports	**328.3**	**324.9**	**326.8**	**333.6**	**337.1**	**358.3**	**393.3**	**430.4**	**484.2**	**490.1**	**516.2**	**5.6%**	**4.6%**	**100.0%**

Source: statistics are taken from national statistical agencies, international organizations, and other proprietary sources. Includes data from GIIGNL, S&P Global.

Gross LNG trade
◆Less than 0.05%.
†Less than 0.05.
Note: Growth rates are adjusted for leap years.

Natural gas: LNG exports

Billion cubic metres	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	**2021**	Growth rate per annum 2021	Growth rate per annum 2011-21	Share 2021
US	1.8	0.8	0.2	0.4	0.7	4.0	17.1	28.6	47.4	61.3	**95.0**	55.4%	49.1%	18.4%
Peru	5.2	5.1	5.7	5.7	5.0	5.5	5.5	4.8	5.3	5.0	**3.5**	-31.1%	-4.0%	0.7%
Trinidad & Tobago	18.2	18.3	18.4	17.6	16.4	14.3	13.5	16.6	17.1	14.3	**9.1**	-35.9%	-6.7%	1.8%
Other Americas*	0.1	0.5	0.1	0.2	†	0.6	0.3	0.1	0.1	0.5	**0.7**	31.6%	24.0%	0.1%
Total Americas	25.2	24.7	24.3	23.9	22.1	24.5	36.5	50.1	69.9	81.2	**108.3**	33.8%	15.7%	21.0%
Russia	14.3	14.3	14.5	13.6	14.6	14.6	15.4	24.9	39.1	41.8	**39.6**	-4.9%	10.7%	7.7%
Norway	4.4	4.6	3.8	4.6	5.6	6.1	5.4	6.8	6.9	4.3	**0.2**	-95.9%	-27.5%	◆
Other Europe*	1.7	3.6	5.2	8.4	5.4	4.5	2.5	5.0	1.9	2.7	**3.6**	32.2%	7.8%	0.7%
Total Europe & CIS	20.4	22.4	23.5	26.6	25.6	25.3	23.4	36.7	47.9	48.8	**43.4**	-10.8%	7.8%	8.4%
Oman	11.0	11.1	11.5	10.6	10.2	11.0	11.4	13.6	14.1	13.2	**14.2**	7.7%	2.6%	2.7%
Qatar	100.7	104.0	105.8	103.6	105.6	107.3	103.6	104.9	105.8	106.5	**106.8**	0.6%	0.6%	20.7%
United Arab Emirates	8.3	8.1	7.9	8.6	7.6	7.7	7.3	7.4	7.7	7.6	**8.8**	15.4%	0.6%	1.7%
Yemen	8.8	7.1	9.9	9.4	1.9	–	–	–	–	–	**–**	–	-100.0%	–
Total Middle East	128.7	130.3	135.2	132.2	125.4	126.0	122.3	125.9	127.5	127.3	**129.7**	2.2%	0.1%	25.1%
Algeria	16.7	14.9	15.0	17.4	16.6	15.5	16.4	13.1	16.8	14.6	**16.1**	10.5%	-0.4%	3.1%
Angola	–	–	0.4	0.4	–	0.9	5.0	5.2	5.8	6.1	**4.7**	-23.0%	–	0.9%
Egypt	9.0	6.9	3.9	0.4	–	0.8	1.2	2.0	4.7	1.8	**9.0**	400.3%	◆	1.7%
Nigeria	25.7	27.9	22.5	26.1	26.9	24.6	28.3	27.8	28.8	28.4	**23.3**	-17.7%	-1.0%	4.5%
Other Africa	5.0	4.6	5.2	5.0	5.0	4.4	4.8	5.4	5.6	5.1	**5.4**	6.0%	0.8%	1.0%
Total Africa	56.4	54.2	47.0	49.5	48.5	46.2	55.7	53.5	61.6	56.0	**58.5**	4.7%	0.4%	11.3%
Australia	26.0	28.3	30.5	32.0	39.9	60.4	76.6	91.8	104.7	106.0	**108.1**	2.2%	15.3%	20.9%
Brunei	9.6	9.2	9.5	8.6	8.7	8.6	9.1	8.5	8.8	8.4	**7.6**	-9.8%	-2.3%	1.5%
Indonesia	28.7	24.4	23.1	21.7	21.6	22.4	21.7	20.8	16.5	16.8	**14.6**	-12.5%	-6.5%	2.8%
Malaysia	33.2	31.4	33.6	34.0	34.3	33.6	36.1	33.0	35.2	32.5	**33.5**	3.3%	0.1%	6.5%
Papua New Guinea	–	–	–	5.0	10.1	10.9	11.1	9.5	11.6	11.6	**11.5**	-0.8%	–	2.2%
Other Asia Pacific*	–	–	0.1	0.2	0.8	0.5	0.8	0.6	0.5	1.4	**1.0**	-30.7%	–	0.2%
Total Asia Pacific	97.5	93.3	96.8	101.5	115.5	136.4	155.4	164.3	177.2	176.9	**176.3**	◆	6.1%	34.2%
Total LNG exports	**328.3**	**324.9**	**326.8**	**333.6**	**337.1**	**358.3**	**393.3**	**430.4**	**484.2**	**490.1**	**516.2**	**5.6%**	**4.6%**	**100.0%**

Source: statistics are taken from national statistical agencies, international organizations, and other proprietary sources. Includes data from GIIGNL, S&P Global.

Gross LNG trade.
*Largely consists of re-exports.
◆Less than 0.05%.
Note: Growth rates are adjusted for leap years.

Natural gas: Trade movements 2021 as LNG*

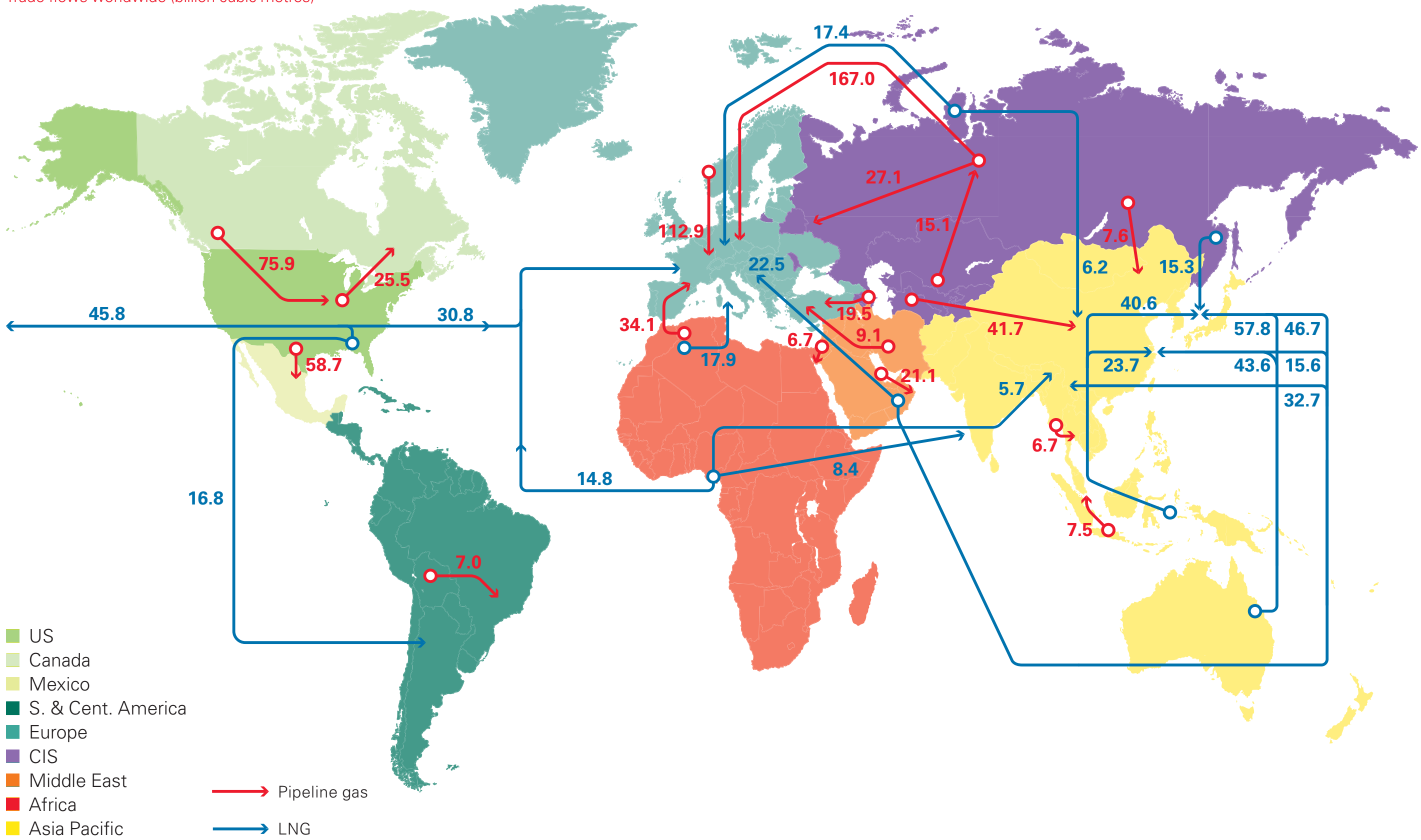
Billion cubic metres **To** (From →)	US	Peru	Trinidad & Tobago	Other Americas*	Norway	Other Europe*	Russian Federation	Oman	Qatar	United Arab Emirates	Yemen	Algeria	Angola	Egypt	Nigeria	Other Africa	Australia	Brunei	Indonesia	Malaysia	Papua New Guinea	Other Asia Pacific*	**Total imports**
Canada	†	0.1	0.6	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	**0.7**
Mexico	0.4	–	0.1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.4	–	–	–	**0.9**
US	–	–	0.6	†	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	**0.6**
North America	0.4	0.1	1.3	†	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.4	–	–	–	**2.2**
Argentina	2.2	–	0.1	–	–	–	–	–	1.4	–	–	–	–	–	–	–	–	–	–	–	–	–	**3.7**
Brazil	8.7	–	0.3	–	–	0.1	–	–	0.9	–	–	–	0.1	–	0.1	–	–	–	–	–	–	–	**10.1**
Chile	3.4	–	0.7	–	–	–	–	–	–	–	–	–	–	–	–	0.4	†	–	–	–	–	–	**4.5**
Other S. & Cent. America	2.5	–	2.6	0.6	–	0.3	–	–	†	–	–	–	–	†	†	–	–	–	–	–	–	†	**6.1**
S. & Cent. America	16.8	–	3.6	0.6	–	0.4	–	–	2.3	–	–	–	0.1	†	0.1	0.4	†	–	–	–	–	†	**24.4**
Belgium	0.2	–	–	–	–	–	1.9	–	3.2	–	–	0.1	–	0.1	–	–	–	–	–	–	–	–	**5.5**
France	4.3	0.1	–	0.1	–	–	4.7	–	0.7	–	–	4.5	–	0.2	3.5	–	–	–	–	–	–	–	**18.1**
Italy	1.0	–	0.2	–	–	0.1	–	–	6.5	–	–	1.3	–	0.3	0.3	–	–	–	–	–	–	–	**9.5**
Spain	5.8	0.1	1.1	–	–	0.1	3.3	–	2.4	–	–	2.1	0.4	0.4	4.3	0.8	0.1	–	–	–	†	–	**20.8**
Turkey	4.5	–	0.2	–	–	†	–	–	0.3	–	–	6.1	–	1.3	1.5	–	–	–	–	–	–	–	**13.9**
United Kingdom	4.0	0.8	0.2	–	–	0.1	3.0	–	6.0	–	–	0.7	–	–	0.1	–	–	–	–	–	–	–	**14.9**
Other European Union	11.1	0.3	0.8	†	0.2	0.4	4.4	–	3.5	–	–	0.6	0.4	0.3	3.4	0.2	–	–	–	–	–	–	**25.5**
Rest of Europe	–	–	–	–	–	0.1	†	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	**0.1**
Europe	30.8	1.3	2.4	0.1	0.2	0.8	17.4	–	22.5	–	–	15.4	0.8	2.5	13.0	1.0	0.1	–	–	–	†	–	**108.2**
Egypt	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	**–**
Kuwait	0.9	–	0.2	–	–	0.3	–	0.4	3.6	0.3	–	0.1	0.1	0.4	1.3	0.1	–	–	–	–	–	0.1	**7.7**
United Arab Emirates	–	–	–	–	–	–	–	–	1.4	–	–	–	0.1	–	0.2	–	–	–	–	–	–	–	**1.7**
Other Middle East & Africa	0.2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	**0.2**
Middle East & Africa	1.2	–	0.2	–	–	0.3	–	0.4	5.0	0.3	–	0.1	0.2	0.4	1.5	0.1	–	–	–	–	–	0.1	**9.6**
China	12.4	0.2	0.6	†	–	0.5	6.2	2.2	12.3	1.0	–	0.3	0.6	1.7	2.1	1.4	43.6	0.9	6.6	11.7	4.5	0.6	**109.5**
India	5.6	–	0.4	–	–	0.6	0.6	1.7	13.6	4.9	–	0.1	1.4	1.5	2.0	0.8	0.4	–	–	0.1	–	–	**33.6**
Japan	9.6	0.7	–	–	–	0.2	8.8	2.6	12.3	1.8	–	–	–	0.3	1.2	0.4	36.3	5.8	2.6	13.9	4.8	0.2	**101.3**
Malaysia	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.1	–	2.1	0.3	–	–	–	–	**2.5**
Pakistan	1.2	–	–	–	–	0.2	–	†	8.1	0.3	–	–	0.8	1.1	0.2	0.1	–	–	–	–	–	–	**12.1**
Singapore	0.7	–	–	–	–	–	0.1	–	0.2	–	–	–	0.3	0.3	0.1	0.2	3.0	–	0.1	0.1	–	–	**5.1**
South Korea	12.1	1.2	0.1	–	–	0.2	3.9	6.3	16.1	0.4	–	–	0.2	0.3	0.9	0.4	12.9	0.3	3.3	5.3	0.3	0.1	**64.1**
Taiwan	2.4	–	0.2	–	–	–	2.6	0.6	6.5	0.1	–	–	–	0.3	0.8	0.3	8.6	0.1	1.6	0.7	2.0	–	**26.8**
Thailand	0.5	–	0.3	–	–	0.1	–	0.3	3.6	–	–	–	0.2	–	1.2	0.3	1.0	0.3	–	1.5	–	–	**9.2**
Other Asia Pacific	1.2	–	–	–	–	0.4	0.1	–	4.1	–	–	0.2	0.2	0.6	0.2	0.2	0.1	–	0.1	0.2	–	0.1	**7.6**
Asia Pacific	45.8	2.1	1.6	†	–	2.2	22.2	13.8	76.9	8.5	–	0.6	3.5	6.1	8.7	3.9	108.0	7.6	14.3	33.5	11.5	0.9	**371.8**
Total exports	**95.0**	**3.5**	**9.1**	**0.7**	**0.2**	**3.6**	**39.6**	**14.2**	**106.8**	**8.8**	**–**	**16.1**	**4.7**	**9.0**	**23.3**	**5.4**	**108.1**	**7.6**	**14.6**	**33.5**	**11.5**	**1.0**	**516.2**

Source: statistics are taken from national statistical agencies, international organizations, and other proprietary sources. Includes data from GIIGNL, S&P Global.

*Includes re-exports.
†Less than 0.05.
Note: As far as possible, the data above represents standard cubic metres (measured at 15°C and 1013 mbar) and has been standardized using a gross calorific value (GCV) of 40 MJ/m^3.

Major trade movements 2021

Trade flows worldwide (billion cubic metres)



Natural gas: Trade movements 2021 by pipeline

Billion cubic metres

To	From: Canada	Mexico	US	Bolivia	Other S. & Cent. America	European Union	Norway	Other Europe[1]	Azerbaijan	Kazakhstan	Russian Federation	Turkmenistan	Uzbekistan	Iran	Qatar	Other Middle East	Algeria	Libya	Other Africa	Indonesia	Myanmar	Other Asia Pacific	**Total imports**
Canada	–	–	25.5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	**25.5**
Mexico	–	–	58.7	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	**58.7**
US	75.9	†	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	**75.9**
North America	75.9	†	84.3	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	**160.2**
Argentina	–	–	–	4.5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	**4.5**
Brazil	–	–	–	7.0	0.1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	**7.1**
Other S. & Cent. America	–	–	–	–	0.8	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	**0.8**
S. & Cent. America	–	–	–	11.5	0.9	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	**12.4**
European Union	–	–	–	–	–	–	80.9	11.2	8.2	–	132.3	–	–	–	–	–	34.1	3.1	–	–	–	–	**269.8**
Rest of Europe	–	–	–	–	–	12.3	31.9	–	11.3	–	34.7	–	–	9.1	–	–	–	–	–	–	–	–	**99.3**
Europe	–	–	–	–	–	12.3	112.9	11.2	19.5	–	167.0	–	–	9.1	–	–	34.1	3.1	–	–	–	–	**369.1**
Belarus	–	–	–	–	–	–	–	–	–	–	18.7	–	–	–	–	–	–	–	–	–	–	–	**18.7**
Kazakhstan	–	–	–	–	–	–	–	–	–	–	2.7	–	–	–	–	–	–	–	–	–	–	–	**2.7**
Russian Federation	–	–	–	–	–	–	–	–	–	4.6	–	10.5	–	–	–	–	–	–	–	–	–	–	**15.1**
Other CIS	–	–	–	–	–	–	–	†	–	–	5.7	–	0.2	0.5	–	–	–	–	–	–	–	–	**6.4**
CIS	–	–	–	–	–	–	–	†	–	4.6	27.1	10.5	0.2	0.5	–	–	–	–	–	–	–	–	**42.9**
United Arab Emirates	–	–	–	–	–	–	–	–	–	–	–	–	–	–	19.5	–	–	–	–	–	–	–	**19.5**
Other Middle East	–	–	–	–	–	–	–	–	0.2	–	–	–	–	7.7	1.6	2.8	–	–	0.7	–	–	–	**13.1**
Middle East	–	–	–	–	–	–	–	–	0.2	–	–	–	–	7.7	21.1	2.8	–	–	0.7	–	–	–	**32.5**
South Africa	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3.5	–	–	–	**3.5**
Other Africa	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3.8	4.8	–	0.9	–	–	–	**9.5**
Africa	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3.8	4.8	–	4.4	–	–	–	**13.0**
Australia	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	4.8	**4.8**
China	–	–	–	–	–	–	–	–	–	5.9	7.6	31.5	4.3	–	–	–	–	–	–	–	3.9	–	**53.2**
Malaysia	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.4	–	–	**0.4**
Singapore	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	7.2	–	2.0	**9.1**
Thailand	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	6.7	–	**6.7**
Asia Pacific	–	–	–	–	–	–	–	–	–	5.9	7.6	31.5	4.3	–	–	–	–	–	–	7.5	10.6	6.7	**74.2**
Total exports	**75.9**	**†**	**84.3**	**11.5**	**0.9**	**12.3**	**112.9**	**11.2**	**19.6**	**10.6**	**201.7**	**42.1**	**4.5**	**17.3**	**21.1**	**6.7**	**38.9**	**3.1**	**5.2**	**7.5**	**10.6**	**6.7**	**704.4**

Source: statistics are taken from national statistical agencies, international organizations, and other proprietary sources. Includes data from FGE MENA natural gas service, S&P Global.

†Less than 0.05.

Note: As far as possible, the data above represents standard cubic metres (measured at 15°C and 1013 mbar) and has been standardized using a gross calorific value (GCV) of 40 MJ/m3.

[1]Includes all of non-EU Europe other than Norway.

Coal

Coal: Production*

Exajoules	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Growth rate per annum 2021	Growth rate per annum 2011-21	Share 2021
Canada	1.48	1.49	1.53	1.51	1.36	1.37	1.33	1.22	1.20	1.04	**1.14**	9.0%	-2.6%	0.7%
Mexico	0.39	0.31	0.30	0.30	0.29	0.25	0.31	0.28	0.23	0.19	**0.18**	-3.7%	-7.3%	0.1%
US	22.27	20.72	20.05	20.33	17.99	14.70	15.66	15.40	14.29	10.73	**11.65**	8.9%	-6.3%	7.0%
Total North America	24.15	22.53	21.87	22.15	19.64	16.33	17.30	16.90	15.72	11.96	**12.97**	8.7%	-6.0%	7.7%
Brazil	0.11	0.12	0.15	0.15	0.12	0.11	0.09	0.10	0.09	0.10	**0.12**	23.4%	0.8%	0.1%
Colombia	2.47	2.58	2.47	2.57	2.49	2.62	2.63	2.48	2.45	1.50	**1.71**	14.2%	-3.6%	1.0%
Venezuela	0.08	0.06	0.04	0.02	0.02	0.02	0.02	0.02	0.01	0.01	**†**	-44.5%	-24.5%	◆
Other S. & Cent. America	0.02	0.02	0.07	0.12	0.10	0.08	0.05	0.05	0.03	0.01	**†**	-62.2%	-11.9%	◆
Total S. & Cent. America	2.68	2.78	2.73	2.87	2.73	2.84	2.79	2.65	2.58	1.63	**1.85**	13.9%	-3.6%	1.1%
Bulgaria	0.26	0.23	0.20	0.21	0.25	0.21	0.24	0.22	0.20	0.16	**0.20**	25.2%	-2.4%	0.1%
Czech Republic	0.88	0.85	0.74	0.71	0.71	0.67	0.64	0.62	0.56	0.43	**0.43**	0.2%	-7.0%	0.3%
Germany	1.96	2.00	1.89	1.85	1.79	1.66	1.65	1.58	1.19	0.98	**1.15**	18.1%	-5.2%	0.7%
Greece	0.31	0.34	0.28	0.27	0.24	0.33	0.38	0.37	0.13	0.07	**0.06**	-12.4%	-15.3%	◆
Hungary	0.07	0.07	0.07	0.07	0.06	0.06	0.05	0.05	0.04	0.04	**0.03**	-18.3%	-7.4%	◆
Poland	2.33	2.42	2.39	2.26	2.22	2.18	2.08	1.98	1.87	1.68	**1.76**	4.8%	-2.8%	1.1%
Romania	0.28	0.27	0.19	0.19	0.20	0.18	0.19	0.17	0.16	0.11	**0.13**	18.5%	-7.5%	0.1%
Serbia	0.33	0.31	0.32	0.24	0.30	0.30	0.30	0.28	0.29	0.30	**0.28**	-7.9%	-1.6%	0.2%
Spain	0.11	0.10	0.07	0.07	0.05	0.03	0.05	0.04	†	†	**†**	4.1%	-33.3%	◆
Turkey	0.75	0.71	0.65	0.68	0.54	0.65	0.63	0.69	0.73	0.66	**0.75**	14.4%	◆	0.4%
Ukraine	1.52	1.64	1.60	1.09	0.72	0.76	0.57	0.61	0.60	0.53	**0.54**	2.3%	-9.8%	0.3%
United Kingdom	0.48	0.44	0.33	0.31	0.23	0.12	0.09	0.07	0.06	0.05	**0.03**	-36.8%	-24.1%	◆
Other Europe	0.66	0.57	0.68	0.65	0.57	0.57	0.57	0.79	0.51	0.45	**0.41**	-8.1%	-4.6%	0.2%
Total Europe	9.94	9.95	9.42	8.59	7.87	7.73	7.45	7.47	6.35	5.47	**5.78**	6.1%	-5.3%	3.5%
Kazakhstan	2.08	2.16	2.15	2.05	1.93	1.85	2.02	2.13	2.07	2.05	**2.09**	2.5%	◆	1.2%
Russian Federation	6.60	7.05	7.25	7.39	7.80	8.12	8.62	9.23	9.23	8.42	**9.14**	8.8%	3.3%	5.5%
Uzbekistan	0.05	0.04	0.05	0.05	0.04	0.05	0.05	0.05	0.05	0.05	**0.06**	16.0%	2.4%	◆
Other CIS	0.05	0.05	0.06	0.06	0.07	0.07	0.09	0.12	0.12	0.11	**0.12**	11.5%	9.9%	0.1%
Total CIS	8.77	9.31	9.51	9.56	9.84	10.10	10.78	11.52	11.47	10.62	**11.41**	7.7%	2.7%	6.8%
Total Middle East	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.05	0.04	0.04	**0.04**	–	2.5%	◆
South Africa	6.00	6.14	6.08	6.20	5.96	6.01	5.97	6.01	6.02	5.82	**5.55**	-4.3%	-0.8%	3.3%
Zimbabwe	0.07	0.04	0.08	0.16	0.12	0.07	0.08	0.09	0.07	0.07	**0.09**	20.0%	2.4%	0.1%
Other Africa	0.05	0.18	0.21	0.24	0.25	0.24	0.41	0.52	0.38	0.31	**0.40**	28.8%	23.2%	0.2%
Total Africa	6.11	6.36	6.38	6.59	6.33	6.32	6.47	6.62	6.47	6.21	**6.04**	-2.4%	-0.1%	3.6%
Australia	10.26	11.13	11.97	12.81	12.80	12.83	12.50	13.09	13.18	12.18	**12.43**	2.4%	1.9%	7.4%
China	77.53	78.44	79.32	78.05	76.59	70.82	73.17	76.87	79.76	80.51	**85.15**	6.0%	0.9%	50.8%
India	10.49	10.68	10.71	11.28	11.77	11.89	11.99	12.80	12.60	12.63	**13.47**	6.9%	2.5%	8.0%
Indonesia	8.72	9.52	11.70	11.30	11.39	11.25	11.38	13.76	15.20	13.91	**15.15**	9.2%	5.7%	9.0%
Japan	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	**0.02**	-12.4%	-5.5%	◆
Mongolia	0.63	0.59	0.64	0.47	0.46	0.67	0.94	1.04	1.09	0.82	**0.62**	-24.8%	-0.2%	0.4%
New Zealand	0.13	0.13	0.12	0.10	0.09	0.07	0.07	0.08	0.08	0.07	**0.08**	2.7%	-5.2%	◆
Pakistan	0.06	0.06	0.06	0.06	0.06	0.08	0.08	0.08	0.13	0.17	**0.14**	-13.9%	8.8%	0.1%
South Korea	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	**0.02**	-11.6%	-7.3%	◆
Thailand	0.25	0.20	0.20	0.19	0.16	0.18	0.17	0.16	0.15	0.14	**0.15**	7.6%	-5.2%	0.1%
Vietnam	1.09	0.99	0.96	0.96	0.98	0.91	0.90	0.99	1.09	1.13	**1.12**	-0.8%	0.3%	0.7%
Other Asia Pacific	0.93	0.96	0.98	0.99	1.06	1.33	1.14	1.06	1.20	1.11	**1.16**	4.3%	2.2%	0.7%
Total Asia Pacific	110.16	112.76	116.71	116.30	115.40	110.09	112.41	119.99	124.51	122.72	**129.49**	5.8%	1.6%	77.3%
Total World	**161.85**	**163.72**	**166.66**	**166.09**	**161.85**	**153.44**	**157.24**	**165.19**	**167.14**	**158.65**	**167.58**	**5.9%**	**0.3%**	**100.0%**
of which: OECD	44.39	43.71	43.43	44.44	41.31	38.00	38.50	38.40	36.33	29.88	**31.61**	6.1%	-3.3%	18.9%
Non-OECD	117.46	120.01	123.23	121.65	120.54	115.44	118.74	126.79	130.81	128.77	**135.97**	5.9%	1.5%	81.1%
European Union	6.57	6.57	6.23	5.98	5.80	5.61	5.59	5.37	4.41	3.67	**3.93**	7.5%	-5.0%	2.3%

Source: statistics are taken from national statistical agencies, international organizations, and other proprietary sources.

*Commercial solid fuels only, i.e. bituminous coal and anthracite (hard coal), and lignite and brown (sub-bituminous) coal, and other commercial solid fuels. Includes coal produced for Coal-to-Liquids and Coal-to-Gas transformations.
†Less than 0.005.
◆Less than 0.05%.
Note: Annual changes and shares of total are calculated using exajoules figures. Growth rates are adjusted for leap years.

Coal: Consumption*

Exajoules	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Growth rate per annum 2021	Growth rate per annum 2011-21	Share 2021
Canada	0.93	0.88	0.86	0.82	0.82	0.77	0.80	0.65	0.61	0.53	**0.48**	-8.4%	-6.4%	0.3%
Mexico	0.62	0.54	0.53	0.53	0.53	0.52	0.64	0.57	0.54	0.24	**0.23**	-3.0%	-9.3%	0.1%
US	19.70	17.42	18.08	18.04	15.58	14.26	13.87	13.28	11.34	9.20	**10.57**	15.2%	-6.0%	6.6%
Total North America	21.25	18.84	19.48	19.39	16.94	15.55	15.30	14.50	12.50	9.97	**11.28**	13.5%	-6.1%	7.0%
Argentina	0.05	0.05	0.05	0.06	0.06	0.04	0.05	0.05	0.03	0.04	**0.07**	82.8%	2.2%	◆
Brazil	0.65	0.64	0.69	0.73	0.74	0.67	0.70	0.69	0.65	0.59	**0.71**	21.6%	1.0%	0.4%
Chile	0.24	0.28	0.32	0.32	0.31	0.31	0.32	0.31	0.31	0.26	**0.26**	0.8%	0.9%	0.2%
Colombia	0.16	0.20	0.21	0.22	0.21	0.23	0.17	0.16	0.20	0.17	**0.13**	-22.1%	-2.0%	0.1%
Ecuador	†	†	†	†	†	†	†	†	†	†	**†**	96.4%	17.6%	◆
Peru	0.03	0.04	0.04	0.04	0.03	0.04	0.04	0.05	0.05	0.04	**0.05**	9.6%	3.0%	◆
Trinidad & Tobago	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Venezuela	0.01	0.01	0.01	0.01	0.01	0.01	†	†	†	†	**†**	-44.5%	-26.4%	◆
Central America	0.02	0.03	0.04	0.04	0.05	0.06	0.04	0.05	0.07	0.07	**0.09**	33.0%	14.1%	0.1%
Other Caribbean	0.08	0.07	0.08	0.09	0.08	0.08	0.07	0.08	0.11	0.15	**0.15**	1.9%	6.6%	0.1%
Other South America	†	†	†	†	†	†	†	†	†	†	**†**	47.5%	7.7%	◆
Total S. & Cent. America	1.25	1.31	1.44	1.51	1.48	1.44	1.41	1.39	1.42	1.31	**1.46**	11.4%	1.6%	0.9%
Austria	0.15	0.13	0.14	0.13	0.14	0.13	0.13	0.12	0.12	0.10	**0.11**	8.0%	-2.5%	0.1%
Belgium	0.15	0.14	0.15	0.14	0.14	0.13	0.13	0.13	0.13	0.10	**0.10**	3.7%	-3.5%	0.1%
Bulgaria	0.34	0.29	0.25	0.27	0.27	0.24	0.26	0.23	0.21	0.17	**0.22**	26.0%	-4.3%	0.1%
Croatia	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	**0.02**	18.7%	-4.8%	◆
Cyprus	†	†	†	†	†	†	†	†	†	†	**†**	196.9%	19.6%	◆
Czech Republic	0.77	0.74	0.71	0.69	0.68	0.69	0.66	0.65	0.60	0.52	**0.54**	4.2%	-3.5%	0.3%
Denmark	0.14	0.10	0.14	0.11	0.07	0.09	0.07	0.07	0.04	0.03	**0.05**	39.6%	-10.2%	◆
Estonia	0.17	0.16	0.17	0.17	0.15	0.16	0.18	0.18	0.13	0.11	**0.12**	16.9%	-3.2%	0.1%
Finland	0.23	0.19	0.21	0.19	0.16	0.18	0.17	0.18	0.15	0.11	**0.12**	4.6%	-6.5%	0.1%
France	0.41	0.46	0.48	0.36	0.36	0.35	0.38	0.34	0.27	0.19	**0.23**	20.5%	-5.5%	0.1%
Germany	3.28	3.37	3.47	3.33	3.29	3.20	3.01	2.90	2.25	1.81	**2.12**	17.5%	-4.3%	1.3%
Greece	0.33	0.34	0.29	0.28	0.24	0.18	0.01	0.20	0.13	0.08	**0.07**	-3.2%	-13.9%	◆
Hungary	0.11	0.11	0.10	0.09	0.10	0.09	0.09	0.09	0.08	0.07	**0.06**	-13.9%	-6.1%	◆
Iceland	†	†	†	†	†	†	†	†	†	–	**–**	–	-100.0%	–
Ireland	0.08	0.09	0.09	0.08	0.09	0.09	0.08	0.06	0.04	0.03	**0.05**	67.9%	-4.3%	◆
Italy	0.64	0.66	0.57	0.55	0.52	0.46	0.40	0.37	0.28	0.21	**0.23**	8.1%	-9.8%	0.1%
Latvia	†	†	†	†	†	†	†	†	†	†	**†**	39.5%	-11.7%	◆
Lithuania	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	**0.01**	18.0%	-2.7%	◆
Luxembourg	†	†	†	†	†	†	†	†	†	†	**†**	-11.7%	-5.3%	◆
Netherlands	0.31	0.34	0.34	0.38	0.46	0.43	0.39	0.35	0.27	0.17	**0.23**	36.6%	-2.8%	0.1%
North Macedonia	0.06	0.06	0.05	0.05	0.04	0.04	0.04	0.04	0.04	0.03	**0.03**	-13.6%	-8.5%	◆
Norway	0.04	0.03	0.03	0.04	0.03	0.03	0.03	0.03	0.03	0.03	**0.03**	2.2%	-0.7%	◆
Poland	2.30	2.14	2.23	2.07	2.04	2.07	2.08	2.09	1.86	1.72	**1.88**	9.6%	-2.0%	1.2%
Portugal	0.09	0.12	0.11	0.11	0.14	0.12	0.14	0.11	0.05	0.02	**0.01**	-54.6%	-19.4%	◆
Romania	0.34	0.32	0.25	0.24	0.25	0.22	0.23	0.21	0.21	0.15	**0.17**	15.9%	-6.6%	0.1%
Slovakia	0.15	0.14	0.14	0.14	0.14	0.13	0.14	0.14	0.11	0.10	**0.12**	26.7%	-2.2%	0.1%
Slovenia	0.06	0.06	0.06	0.04	0.04	0.05	0.05	0.05	0.04	0.04	**0.03**	-17.5%	-5.5%	◆
Spain	0.54	0.65	0.48	0.49	0.57	0.44	0.56	0.48	0.21	0.12	**0.16**	30.3%	-11.3%	0.1%
Sweden	0.10	0.09	0.09	0.08	0.08	0.08	0.08	0.08	0.08	0.07	**0.06**	-16.4%	-5.8%	◆
Switzerland	0.01	0.01	0.01	0.01	0.01	†	†	†	†	†	**†**	–	-4.4%	◆
Turkey	1.42	1.53	1.32	1.51	1.45	1.61	1.65	1.71	1.76	1.70	**1.74**	2.8%	2.1%	1.1%
Ukraine	1.74	1.79	1.73	1.49	1.14	1.36	1.08	1.17	1.09	0.96	**0.95**	◆	-5.8%	0.6%
United Kingdom	1.32	1.63	1.55	1.25	0.97	0.46	0.38	0.32	0.22	0.20	**0.21**	3.2%	-16.8%	0.1%
Other Europe	0.66	0.59	0.61	0.50	0.58	0.60	0.59	0.59	0.57	0.59	**0.31**	-47.2%	-7.3%	0.2%
Total Europe	15.98	16.34	15.80	14.84	14.20	13.69	13.04	12.91	11.02	9.48	**10.01**	5.9%	-4.6%	6.3%
Azerbaijan	†	†	†	†	†	†	†	†	†	†	**†**	–	-16.6%	◆
Belarus	0.03	0.03	0.04	0.03	0.03	0.03	0.04	0.05	0.06	0.04	**0.03**	-12.9%	-0.6%	◆
Kazakhstan	1.52	1.58	1.57	1.55	1.43	1.42	1.52	1.70	1.66	1.56	**1.56**	0.2%	0.2%	1.0%
Russian Federation	3.94	4.12	3.79	3.67	3.86	3.74	3.51	3.63	3.57	3.29	**3.41**	4.0%	-1.4%	2.1%
Turkmenistan	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Uzbekistan	0.04	0.05	0.07	0.07	0.05	0.06	0.06	0.09	0.08	0.10	**0.07**	-28.6%	7.5%	◆
Other CIS	0.05	0.05	0.06	0.07	0.08	0.08	0.09	0.09	0.09	0.09	**0.10**	15.5%	7.8%	0.1%
Total CIS	5.57	5.84	5.52	5.39	5.45	5.33	5.22	5.56	5.45	5.08	**5.17**	2.2%	-0.7%	3.2%
Iran	0.06	0.05	0.06	0.07	0.07	0.06	0.07	0.07	0.07	0.07	**0.07**	–	2.2%	◆
Iraq	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Israel	0.33	0.37	0.30	0.28	0.27	0.23	0.21	0.20	0.21	0.18	**0.16**	-10.3%	-6.9%	0.1%
Kuwait	†	†	0.01	0.01	0.01	0.01	0.01	0.01	0.01	†	**†**	110.4%	16.9%	◆
Oman	†	†	†	†	†	†	†	†	0.01	0.01	**0.01**	-3.1%	40.9%	◆
Qatar	–	†	†	†	†	†	†	†	†	†	**†**	–	–	◆
Saudi Arabia	†	†	†	0.01	†	†	†	†	†	†	**†**	–	3.0%	◆
United Arab Emirates	0.02	0.06	0.07	0.08	0.07	0.08	0.09	0.08	0.08	0.08	**0.07**	-6.3%	14.8%	◆
Other Middle East	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.01	0.01	**0.01**	-11.8%	-5.3%	◆
Total Middle East	0.43	0.50	0.47	0.47	0.44	0.41	0.40	0.39	0.40	0.36	**0.34**	-6.6%	-2.3%	0.2%
Algeria	0.01	0.01	0.01	0.01	0.01	†	0.01	0.02	0.02	0.02	**0.02**	–	4.2%	◆
Egypt	0.02	0.02	0.02	0.02	0.03	0.05	0.05	0.09	0.08	0.03	**0.05**	62.1%	10.7%	◆
Morocco	0.12	0.13	0.13	0.17	0.19	0.18	0.19	0.22	0.28	0.28	**0.31**	10.1%	9.4%	0.2%
South Africa	3.79	3.70	3.70	3.75	3.52	3.78	3.72	3.53	3.76	3.56	**3.53**	-0.5%	-0.7%	2.2%
Eastern Africa	0.12	0.10	0.16	0.24	0.20	0.16	0.20	0.22	0.19	0.19	**0.20**	7.8%	4.9%	0.1%
Middle Africa	0.01	†	†	†	†	†	0.01	0.01	0.01	0.01	**0.01**	-15.2%	1.7%	◆
Western Africa	0.02	0.01	0.01	0.02	0.03	0.03	0.03	0.03	0.03	0.03	**0.03**	16.0%	8.1%	◆
Other Northern Africa	†	†	–	–	–	–	–	–	–	–	**–**	–	-100.0%	–
Other Southern Africa	0.04	0.05	0.05	0.06	0.06	0.06	0.07	0.06	0.06	0.06	**0.06**	5.6%	4.0%	◆
Total Africa	4.13	4.03	4.07	4.26	4.03	4.27	4.27	4.19	4.43	4.17	**4.21**	1.2%	0.2%	2.6%
Australia	2.13	2.00	1.89	1.88	1.95	1.94	1.88	1.83	1.75	1.69	**1.63**	-3.1%	-2.6%	1.0%
Bangladesh	0.05	0.04	0.05	0.03	0.09	0.07	0.08	0.09	0.14	0.16	**0.14**	-12.1%	11.4%	0.1%
China	79.71	80.71	82.43	82.48	80.92	80.19	80.56	81.05	81.70	82.38	**86.17**	4.9%	0.8%	53.8%
China Hong Kong SAR	0.31	0.31	0.33	0.34	0.28	0.28	0.26	0.27	0.26	0.14	**0.15**	11.4%	-6.8%	0.1%
India	12.76	14.02	14.87	16.36	16.55	16.88	17.44	18.58	18.59	17.40	**20.09**	15.8%	4.6%	12.5%
Indonesia	1.96	2.03	1.78	1.88	2.14	2.23	2.39	2.84	3.41	3.25	**3.28**	1.2%	5.3%	2.0%
Japan	4.62	4.88	5.07	4.99	5.03	5.02	5.10	4.99	4.91	4.57	**4.80**	5.2%	0.4%	3.0%
Malaysia	0.62	0.66	0.63	0.64	0.73	0.78	0.87	0.93	0.88	0.98	**0.89**	-9.0%	3.7%	0.6%
New Zealand	0.06	0.07	0.06	0.06	0.06	0.05	0.05	0.06	0.06	0.06	**0.07**	17.6%	2.1%	◆
Pakistan	0.17	0.17	0.13	0.20	0.20	0.22	0.30	0.50	0.56	0.64	**0.67**	5.1%	14.9%	0.4%
Philippines	0.32	0.34	0.42	0.45	0.49	0.55	0.65	0.68	0.73	0.73	**0.79**	8.7%	9.3%	0.5%
Singapore	†	†	0.01	0.02	0.02	0.02	0.04	0.02	0.02	0.02	**0.03**	80.1%	61.6%	◆
South Korea	3.50	3.38	3.41	3.53	3.58	3.41	3.61	3.63	3.44	3.02	**3.04**	0.7%	-1.4%	1.9%
Sri Lanka	0.01	0.02	0.02	0.04	0.05	0.05	0.06	0.05	0.06	0.06	**0.06**	-3.8%	17.0%	◆
Taiwan	1.69	1.65	1.68	1.70	1.65	1.67	1.70	1.70	1.67	1.56	**1.67**	7.7%	-0.1%	1.0%
Thailand	0.66	0.69	0.68	0.75	0.73	0.75	0.75	0.80	0.71	0.76	**0.81**	6.0%	2.1%	0.5%
Vietnam	0.73	0.67	0.72	0.87	1.10	1.19	1.19	1.58	2.09	2.10	**2.15**	2.5%	11.4%	1.3%
Other Asia Pacific	0.56	0.58	0.45	0.51	0.49	0.62	0.96	0.98	1.12	1.17	**1.19**	1.6%	7.8%	0.7%
Total Asia Pacific	109.85	112.20	114.66	116.72	116.05	115.94	117.87	120.59	122.11	120.70	**127.63**	6.0%	1.5%	79.7%
Total World	**158.46**	**159.06**	**161.43**	**162.58**	**158.60**	**156.61**	**157.51**	**159.54**	**157.32**	**151.07**	**160.10**	**6.3%**	**0.1%**	**100.0%**
of which: OECD	45.11	43.27	43.63	42.93	40.22	37.95	37.47	36.34	32.25	27.50	**29.69**	8.3%	-4.1%	18.5%
Non-OECD	113.35	115.79	117.80	119.65	118.37	118.66	120.03	123.20	125.07	123.57	**130.41**	5.8%	1.4%	81.5%
European Union	10.75	10.70	10.50	10.00	9.98	9.58	9.25	9.04	7.30	5.97	**6.74**	13.2%	-4.6%	4.2%

*Commercial solid fuels only, i.e. bituminous coal and anthracite (hard coal), and lignite and brown (sub-bituminous) coal, and other commercial solid fuels. Excludes coal converted to liquid or gaseous fuels, but includes coal consumed in transformation processes.

†Less than 0.005.

◆Less than 0.05%.

Source: statistics are taken from national statistical agencies, international organizations, and other proprietary sources.

Notes: Differences between these consumption figures and the world production statistics are accounted for by stock changes, and unavoidable disparities in the definition, measurement or conversion of coal supply and demand data.

Annual changes and share of total are calculated using exajoules figures. Growth rates are adjusted for leap years.

Coal: Prices

US dollars per tonne	Northwest Europe marker price†	US Central Appalachian coal spot price index‡	Japan steam spot CIF price†	China Qinhuangdao spot price†
2001	39.03	50.15	37.69	31.78
2002	31.65	33.20	31.47	33.19
2003	43.60	38.52	39.61	31.74
2004	72.13	64.90	74.22	42.76
2005	60.54	70.12	64.62	51.34
2006	64.11	57.82	65.22	53.53
2007	88.79	49.73	95.59	61.23
2008	147.67	117.42	157.88	104.97
2009	70.39	60.73	83.59	87.86
2010	92.50	67.87	108.47	110.08
2011	121.48	84.75	126.13	127.27
2012	92.50	67.28	100.30	111.89
2013	81.69	69.72	90.07	95.42
2014	75.38	67.08	76.13	84.12
2015	56.79	51.57	60.10	67.53
2016	60.09	51.45	71.66	71.35
2017	84.51	63.83	96.02	94.72
2018	91.83	72.84	112.73	99.45
2019	60.86	57.16	85.48	85.89
2020	50.16	42.77	69.01	83.10
2021	121.70	68.54	155.41	153.55

†Source: IHS Northwest Europe prices for 1990-2000 are the average of the monthly marker, 2001-2021 the average of weekly prices. IHS Japan prices basis = 6,000 kilocalories per kilogram NAR CIF). The Asian prices are the average of the monthly marker. Chinese prices are the average monthly price for 2000-2005, weekly prices 2006 -2021, 5,500 kilocalories per kilogram NAR, including cost and freight (CFR).
‡Source: S&P Global Platts ©2021, S&P Global Inc. Prices are for Central Appalachian 12,500 Btu, 1.2 SO_2 coal, FOB. Prices for 1996-2000 are by coal price publication date, 2001-2005 by coal price assessment date. 2006-2021 weekly CAPP 12,500 Btu, 1.6 SO_2 coal, FOB.
Note: CIF = cost+insurance+freight (average prices); FOB = free on board.

Coal: Trade movements

Exajoules	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	**2021**	Growth rate per annum 2021	Growth rate per annum 2011-21	Share 2021
Imports														
Canada	0.24	0.23	0.22	0.26	0.22	0.19	0.22	0.23	0.21	0.17	**0.20**	12.9%	-1.9%	0.6%
Mexico	0.21	0.22	0.20	0.22	0.23	0.21	0.34	0.34	0.24	0.03	**0.06**	86.7%	-11.9%	0.2%
US	0.36	0.27	0.24	0.28	0.28	0.25	0.19	0.15	0.17	0.14	**0.15**	5.4%	-8.4%	0.4%
S. & Cent. America	0.99	0.88	1.06	1.06	1.00	1.06	1.23	1.21	1.12	1.04	**1.25**	20.2%	2.4%	3.7%
Europe	5.63	6.09	5.85	6.09	6.03	5.40	5.86	6.44	5.11	3.91	**4.38**	12.4%	-2.5%	13.1%
CIS	0.59	0.53	0.56	0.56	0.53	0.48	0.60	0.66	0.70	0.65	**0.67**	3.7%	1.3%	2.0%
Middle East	0.43	0.49	0.44	0.49	0.38	0.34	0.37	0.38	0.32	0.31	**0.29**	-4.4%	-3.8%	0.9%
Africa	0.34	0.31	0.81	0.37	0.44	0.50	0.63	0.86	0.62	0.51	**0.68**	32.4%	7.1%	2.0%
China	5.20	6.71	7.63	6.62	4.69	5.65	5.87	6.13	6.40	6.61	**6.54**	-0.8%	2.3%	19.5%
India	2.37	3.09	3.66	4.65	4.92	6.46	5.25	5.68	4.70	4.74	**4.90**	3.7%	7.5%	14.6%
Japan	4.61	4.87	5.06	5.00	5.05	5.01	5.06	5.01	4.90	4.56	**4.86**	7.0%	0.5%	14.5%
South Korea	3.38	3.30	3.32	3.43	3.54	3.53	3.89	3.92	3.73	3.28	**3.41**	4.1%	0.1%	10.2%
Other Asia Pacific	3.29	3.65	3.61	2.73	3.96	4.60	5.00	5.50	5.24	6.19	**6.08**	-1.5%	6.3%	18.2%
Total World	**27.64**	**30.61**	**32.65**	**31.76**	**31.27**	**33.69**	**34.50**	**36.50**	**33.47**	**32.15**	**33.47**	**4.4%**	**1.9%**	**100.0%**
Exports														
Canada	1.03	0.99	1.13	1.00	0.86	0.78	0.94	1.04	1.02	0.95	**1.05**	11.1%	0.2%	3.2%
US	2.50	3.02	2.88	2.38	1.89	1.52	2.39	2.89	2.19	1.74	**2.14**	23.6%	-1.5%	6.4%
Colombia	2.02	2.25	2.05	2.27	2.19	2.33	2.48	2.43	2.08	1.68	**1.73**	3.0%	-1.5%	5.2%
Europe	0.16	0.20	0.68	0.13	0.10	0.13	0.19	0.26	0.24	0.22	**0.25**	16.1%	4.6%	0.8%
Russia	2.86	3.23	3.55	3.78	4.11	4.47	5.09	5.78	5.79	5.67	**5.99**	5.9%	7.7%	17.9%
Other CIS	0.58	0.50	0.51	0.51	0.48	0.45	0.51	0.56	0.56	0.58	**0.67**	15.2%	1.5%	2.0%
South Africa	2.04	2.22	2.10	2.18	2.30	2.16	2.71	3.03	1.40	1.75	**1.93**	11.0%	-0.5%	5.8%
Other Africa	0.04	0.13	0.11	0.18	0.26	2.02	0.66	0.25	0.28	0.19	**0.30**	64.0%	23.9%	0.9%
Australia	7.04	7.96	9.19	9.12	9.95	9.87	9.70	9.78	9.62	9.36	**9.63**	3.2%	3.2%	28.8%
China	0.44	0.28	0.28	0.36	0.45	0.51	0.42	0.43	0.34	0.18	**0.29**	61.1%	-4.2%	0.9%
Indonesia	7.18	8.16	8.57	8.42	7.48	7.73	8.08	8.56	8.49	8.67	**8.58**	-0.7%	1.8%	25.6%
Mongolia	0.58	0.63	0.49	0.53	0.41	0.73	0.95	0.99	1.04	0.79	**0.45**	-42.3%	-2.5%	1.4%
Other Asia Pacific	1.01	0.90	0.92	0.77	0.65	0.77	0.32	0.42	0.33	0.32	**0.37**	15.5%	-9.6%	1.1%
Rest of World	0.16	0.15	0.19	0.14	0.14	0.22	0.06	0.09	0.07	0.06	**0.08**	32.0%	-7.2%	0.2%
Total World	**27.64**	**30.61**	**32.65**	**31.76**	**31.27**	**33.69**	**34.50**	**36.50**	**33.47**	**32.15**	**33.47**	**4.4%**	**1.9%**	**100.0%**

Source: statistics are taken from national statistical agencies, international organizations, and other proprietary sources.

Note: Commercial solid fuels only, i.e. bituminous coal and anthracite (hard coal), and lignite and brown (sub-bituminous) coal, and other commercial solid fuels. Intra-area movements (for example between countries in Europe) are excluded.
Growth rates are adjusted for leap years.

Coal: Inter-area movements 2021

Exajoules	To													
From	Canada	Mexico	US	S. & Cent. America	Europe	CIS	Middle East	Africa	China	India	Japan	South Korea	Other Asia Pacific	**Total**
Canada	–	–	0.03	0.04	0.09	†	†	†	0.29	0.05	0.21	0.27	0.06	**1.05**
US	0.15	0.02	–	0.26	0.59	†	†	0.14	0.30	0.35	0.25	0.08	0.01	**2.14**
Colombia	0.04	0.03	0.08	0.51	0.63	†	0.09	0.01	0.11	0.09	0.02	0.08	0.04	**1.73**
Europe	†	†	†	0.01	–	0.08	†	0.02	0.01	0.10	†	†	0.02	**0.25**
Russia	0.01	0.01	0.01	0.13	2.11	0.10	0.07	0.25	1.46	0.17	0.51	0.60	0.58	**5.99**
Other CIS	–	–	–	†	0.14	0.49	†	†	0.01	0.01	†	–	0.01	**0.67**
South Africa	†	–	0.02	0.01	0.08	–	0.07	0.17	0.18	0.80	0.01	0.08	0.51	**1.93**
Other Africa	–	–	†	0.02	0.03	–	†	0.05	0.03	0.12	0.01	0.03	0.01	**0.30**
Australia	†	†	†	0.24	0.64	†	0.02	0.03	0.32	1.46	3.17	1.66	2.08	**9.63**
China	†	†	†	0.01	0.02	†	†	†	–	0.05	0.08	0.02	0.09	**0.29**
Indonesia	–	–	0.01	†	0.02	–	†	†	3.23	1.53	0.56	0.55	2.67	**8.58**
Mongolia	–	–	–	–	†	†	–	–	0.45	–	–	†	–	**0.45**
Other Asia Pacific	†	†	†	0.01	0.02	†	0.01	†	0.13	0.13	0.03	0.03	–	**0.37**
Rest of World	†	†	†	0.01	0.02	†	0.01	†	0.01	0.01	†	†	0.01	**0.08**
Total imports	**0.20**	**0.06**	**0.15**	**1.25**	**4.38**	**0.67**	**0.29**	**0.68**	**6.54**	**4.90**	**4.86**	**3.41**	**6.08**	**33.47**

Source: statistics are taken from national statistical agencies, international organizations, and other proprietary sources.

†Less than 0.005.
Note: Commercial solid fuels only, i.e. bituminous coal and anthracite (hard coal), and lignite and brown (sub-bituminous) coal, and other commercial solid fuels. Intra-area movements (for example, between countries in Europe) are excluded.

Nuclear energy

Consumption*

Exajoules (input-equivalent)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	**2021**	Growth rate per annum 2021	Growth rate per annum 2011-21	Share 2021
Canada	0.89	0.89	0.97	1.00	0.94	0.93	0.92	0.91	0.92	0.88	**0.83**	-5.8%	-0.6%	3.3%
Mexico	0.10	0.08	0.11	0.09	0.11	0.10	0.10	0.12	0.10	0.10	**0.11**	6.6%	1.1%	0.4%
US	7.93	7.67	7.82	7.85	7.81	7.84	7.79	7.76	7.76	7.54	**7.40**	-1.6%	-0.7%	29.3%
Total North America	8.91	8.65	8.90	8.94	8.85	8.87	8.81	8.80	8.78	8.53	**8.34**	-1.9%	-0.7%	33.0%
Argentina	0.06	0.06	0.06	0.05	0.07	0.08	0.06	0.06	0.08	0.10	**0.10**	1.5%	4.8%	0.4%
Brazil	0.15	0.15	0.15	0.14	0.14	0.15	0.14	0.14	0.15	0.13	**0.13**	4.5%	-1.2%	0.5%
Chile	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Colombia	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Ecuador	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Peru	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Trinidad & Tobago	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Venezuela	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Central America	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Other Caribbean	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Other South America	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Total S. & Cent. America	0.21	0.21	0.20	0.20	0.20	0.22	0.20	0.21	0.22	0.22	**0.23**	3.2%	0.9%	0.9%
Austria	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Belgium	0.46	0.38	0.40	0.32	0.24	0.40	0.39	0.26	0.40	0.31	**0.46**	46.7%	-0.1%	1.8%
Bulgaria	0.16	0.15	0.13	0.15	0.14	0.15	0.14	0.15	0.15	0.15	**0.15**	-1.0%	-0.4%	0.6%
Croatia	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Cyprus	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Czech Republic	0.27	0.29	0.29	0.28	0.25	0.22	0.26	0.27	0.28	0.27	**0.28**	2.2%	0.3%	1.1%
Denmark	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Estonia	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Finland	0.22	0.22	0.22	0.22	0.22	0.22	0.21	0.21	0.22	0.21	**0.22**	1.2%	-0.4%	0.9%
France	4.22	4.03	3.99	4.08	4.07	3.73	3.66	3.77	3.63	3.21	**3.43**	7.1%	-2.0%	13.5%
Germany	1.03	0.94	0.92	0.91	0.85	0.78	0.70	0.69	0.68	0.58	**0.62**	7.1%	-4.9%	2.5%
Greece	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Hungary	0.15	0.15	0.14	0.15	0.15	0.15	0.15	0.14	0.15	0.15	**0.14**	-0.5%	-0.3%	0.6%
Iceland	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Ireland	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Italy	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Latvia	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Lithuania	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Luxembourg	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Netherlands	0.04	0.04	0.03	0.04	0.04	0.04	0.03	0.03	0.04	0.04	**0.03**	-6.5%	-1.3%	0.1%
North Macedonia	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Norway	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Poland	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Portugal	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Romania	0.11	0.11	0.11	0.11	0.11	0.10	0.11	0.10	0.10	0.10	**0.10**	-1.7%	-0.9%	0.4%
Slovakia	0.15	0.15	0.15	0.15	0.14	0.14	0.14	0.14	0.14	0.14	**0.14**	2.1%	-0.3%	0.6%
Slovenia	0.06	0.05	0.05	0.06	0.05	0.05	0.06	0.05	0.05	0.06	**0.05**	-10.3%	-1.4%	0.2%
Spain	0.55	0.58	0.53	0.54	0.53	0.54	0.53	0.51	0.53	0.53	**0.51**	-3.2%	-0.7%	2.0%
Sweden	0.58	0.61	0.63	0.61	0.52	0.58	0.60	0.63	0.60	0.45	**0.48**	7.8%	-1.8%	1.9%
Switzerland	0.26	0.24	0.25	0.26	0.22	0.20	0.19	0.22	0.23	0.21	**0.17**	-19.5%	-4.2%	0.7%
Turkey	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Ukraine	0.86	0.85	0.78	0.83	0.82	0.75	0.79	0.77	0.76	0.69	**0.78**	13.0%	-1.0%	3.1%
United Kingdom	0.66	0.67	0.66	0.60	0.65	0.66	0.65	0.59	0.51	0.46	**0.41**	-8.9%	-4.5%	1.6%
Other Europe	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Total Europe	9.76	9.46	9.29	9.29	9.01	8.71	8.61	8.56	8.47	7.56	**7.98**	5.8%	-2.0%	31.5%
Azerbaijan	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Belarus	–	–	–	–	–	–	–	–	–	†	**0.05**	1608.5%	–	0.2%
Kazakhstan	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Russian Federation	1.65	1.68	1.62	1.69	1.82	1.82	1.87	1.87	1.90	1.96	**2.01**	2.9%	2.0%	7.9%
Turkmenistan	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Uzbekistan	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Other CIS	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.03	**0.02**	-27.6%	-2.9%	0.1%
Total CIS	1.67	1.70	1.65	1.71	1.84	1.84	1.89	1.89	1.92	1.99	**2.08**	5.0%	2.2%	8.2%
Iran	†	0.01	0.04	0.04	0.03	0.06	0.06	0.06	0.06	0.06	**0.03**	-44.2%	41.1%	0.1%
Iraq	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Israel	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Kuwait	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Oman	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Qatar	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Saudi Arabia	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
United Arab Emirates	–	–	–	–	–	–	–	–	–	0.01	**0.10**	548.8%	–	0.4%
Other Middle East	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Total Middle East	†	0.01	0.04	0.04	0.03	0.06	0.06	0.06	0.06	0.07	**0.13**	76.9%	62.0%	0.5%
Algeria	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Egypt	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Morocco	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
South Africa	0.12	0.12	0.13	0.13	0.11	0.14	0.13	0.11	0.12	0.13	**0.09**	-25.3%	-2.6%	0.4%
Eastern Africa	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Middle Africa	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Western Africa	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Other Northern Africa	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Other Southern Africa	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Total Africa	0.12	0.12	0.13	0.13	0.11	0.14	0.13	0.11	0.12	0.13	**0.09**	-25.3%	-2.6%	0.4%
Australia	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Bangladesh	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
China	0.83	0.93	1.05	1.25	1.59	1.97	2.28	2.70	3.18	3.32	**3.68**	11.2%	16.1%	14.6%
China Hong Kong SAR	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
India	0.31	0.31	0.31	0.32	0.36	0.35	0.34	0.36	0.41	0.40	**0.40**	-1.6%	2.6%	1.6%
Indonesia	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Japan	1.55	0.17	0.14	–	0.04	0.16	0.27	0.45	0.60	0.39	**0.55**	42.2%	-9.8%	2.2%
Malaysia	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
New Zealand	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Pakistan	0.04	0.03	0.04	0.04	0.04	0.05	0.07	0.08	0.08	0.09	**0.14**	65.9%	14.3%	0.6%
Philippines	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Singapore	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
South Korea	1.47	1.42	1.31	1.46	1.53	1.50	1.36	1.22	1.33	1.45	**1.43**	-1.4%	-0.3%	5.6%
Sri Lanka	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Taiwan	0.40	0.38	0.39	0.40	0.34	0.29	0.21	0.25	0.29	0.29	**0.25**	-11.7%	-4.6%	1.0%
Thailand	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Vietnam	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Other Asia Pacific	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Total Asia Pacific	4.60	3.25	3.24	3.48	3.90	4.33	4.54	5.06	5.89	5.94	**6.46**	9.0%	3.4%	25.5%
Total World	**25.28**	**23.40**	**23.45**	**23.78**	**23.96**	**24.17**	**24.25**	**24.68**	**25.46**	**24.44**	**25.31**	**3.8%**	**◆**	**100.0%**
of which: OECD	20.57	18.59	18.60	18.61	18.37	18.25	18.02	18.00	18.16	16.99	**17.27**	2.0%	-1.7%	68.2%
Non-OECD	4.71	4.82	4.84	5.17	5.59	5.93	6.23	6.68	7.30	7.46	**8.04**	8.1%	5.5%	31.8%
European Union	7.99	7.69	7.59	7.61	7.32	7.10	6.98	6.97	6.97	6.20	**6.62**	7.0%	-1.9%	26.1%

*Based on gross generation and not accounting for cross-border electricity supply. "Input-equivalent" energy is the amount of fuel that would be required by thermal power stations to generate the reported electricity output. Details on thermal efficiency assumptions are available in the appendices and definitions page and at *bp.com/statisticalreview*.
†Less than 0.005.
◆Less than 0.05%.
Notes: Annual changes and share of total are calculated using exajoules figures. Growth rates are adjusted for leap years.

Hydroelectricity

Consumption*

Exajoules (input-equivalent)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Growth rate per annum 2021	Growth rate per annum 2011-21	Share 2021
Canada	3.73	3.75	3.84	3.73	3.71	3.71	3.78	3.68	3.62	3.65	**3.59**	-1.6%	-0.4%	8.9%
Mexico	0.36	0.31	0.27	0.38	0.30	0.30	0.31	0.31	0.22	0.25	**0.33**	28.8%	-1.0%	0.8%
US	3.14	2.70	2.62	2.49	2.39	2.54	2.84	2.76	2.71	2.67	**2.43**	-9.0%	-2.5%	6.0%
Total North America	7.23	6.77	6.73	6.60	6.39	6.55	6.93	6.74	6.56	6.58	**6.34**	-3.4%	-1.3%	15.8%
Argentina	0.31	0.29	0.32	0.32	0.31	0.29	0.30	0.31	0.26	0.22	**0.18**	-17.3%	-5.0%	0.5%
Brazil	4.25	4.10	3.84	3.64	3.49	3.67	3.55	3.70	3.78	3.75	**3.42**	-8.6%	-2.2%	8.5%
Chile	0.20	0.20	0.20	0.22	0.23	0.19	0.20	0.22	0.20	0.21	**0.16**	-24.0%	-2.6%	0.4%
Colombia	0.48	0.47	0.44	0.44	0.43	0.45	0.55	0.54	0.52	0.47	**0.56**	20.0%	1.6%	1.4%
Ecuador	0.11	0.12	0.11	0.11	0.13	0.15	0.19	0.20	0.23	0.23	**0.24**	5.0%	8.1%	0.6%
Peru	0.21	0.22	0.22	0.22	0.23	0.23	0.28	0.29	0.30	0.29	**0.30**	4.6%	3.5%	0.7%
Trinidad & Tobago	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Venezuela	0.83	0.81	0.80	0.78	0.72	0.60	0.67	0.55	0.47	0.58	**0.58**	-0.2%	-3.5%	1.4%
Central America	0.21	0.22	0.21	0.21	0.22	0.22	0.26	0.26	0.20	0.25	**0.28**	10.8%	3.1%	0.7%
Other Caribbean	0.02	0.02	0.02	0.02	0.01	0.02	0.03	0.02	0.02	0.02	**0.02**	11.6%	-1.3%	♦
Other South America	0.67	0.68	0.71	0.67	0.65	0.72	0.68	0.67	0.59	0.52	**0.48**	-7.6%	-3.4%	1.2%
Total S. & Cent. America	7.30	7.13	6.87	6.62	6.43	6.55	6.72	6.76	6.57	6.54	**6.22**	-4.6%	-1.6%	15.4%
Austria	0.34	0.43	0.41	0.40	0.36	0.39	0.37	0.36	0.39	0.40	**0.40**	1.9%	1.7%	1.0%
Belgium	†	†	†	†	†	†	†	†	†	†	**†**	40.1%	6.1%	♦
Bulgaria	0.03	0.03	0.04	0.04	0.05	0.04	0.03	0.05	0.03	0.03	**0.04**	58.9%	4.0%	0.1%
Croatia	0.05	0.05	0.08	0.09	0.06	0.07	0.05	0.07	0.06	0.05	**0.07**	26.2%	3.0%	0.2%
Cyprus	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Czech Republic	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	**0.02**	12.3%	0.7%	0.1%
Denmark	†	†	†	†	†	†	†	†	†	†	**†**	-4.5%	-0.9%	♦
Estonia	†	†	†	†	†	†	†	†	†	†	**†**	3.4%	-0.2%	♦
Finland	0.12	0.17	0.13	0.13	0.16	0.15	0.14	0.13	0.12	0.15	**0.15**	-0.9%	1.9%	0.4%
France	0.44	0.58	0.70	0.61	0.53	0.58	0.47	0.61	0.53	0.58	**0.55**	-5.3%	2.1%	1.4%
Germany	0.18	0.21	0.23	0.19	0.18	0.20	0.19	0.17	0.19	0.17	**0.18**	4.1%	0.2%	0.4%
Greece	0.04	0.04	0.06	0.04	0.06	0.05	0.04	0.05	0.04	0.03	**0.05**	76.2%	3.3%	0.1%
Hungary	†	†	†	†	†	†	†	†	†	†	**†**	-14.8%	-1.2%	♦
Iceland	0.12	0.12	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.12	**0.13**	5.0%	0.5%	0.3%
Ireland	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	**0.01**	-20.0%	♦	♦
Italy	0.46	0.41	0.52	0.57	0.43	0.39	0.33	0.47	0.45	0.43	**0.41**	-5.9%	-1.1%	1.0%
Latvia	0.03	0.04	0.03	0.02	0.02	0.02	0.04	0.02	0.02	0.02	**0.03**	4.1%	-1.1%	0.1%
Lithuania	†	†	0.01	†	†	†	0.01	†	†	†	**†**	28.0%	-2.7%	♦
Luxembourg	†	†	†	†	†	†	†	†	†	†	**†**	14.9%	4.7%	♦
Netherlands	†	†	†	†	†	†	†	†	†	†	**†**	91.1%	4.0%	♦
North Macedonia	0.01	0.01	0.02	0.01	0.02	0.02	0.01	0.02	0.01	0.01	**0.01**	13.6%	-0.4%	♦
Norway	1.19	1.40	1.26	1.32	1.33	1.37	1.36	1.32	1.19	1.33	**1.35**	1.6%	1.2%	3.3%
Poland	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	**0.02**	10.3%	-0.5%	0.1%
Portugal	0.11	0.06	0.13	0.15	0.08	0.15	0.06	0.12	0.08	0.11	**0.11**	-2.0%	-0.3%	0.3%
Romania	0.15	0.12	0.15	0.18	0.16	0.17	0.14	0.17	0.15	0.15	**0.16**	9.8%	0.9%	0.4%
Slovakia	0.04	0.04	0.05	0.04	0.04	0.04	0.04	0.03	0.04	0.04	**0.04**	-6.5%	1.0%	0.1%
Slovenia	0.04	0.04	0.05	0.06	0.04	0.04	0.04	0.04	0.04	0.05	**0.04**	-4.7%	2.3%	0.1%
Spain	0.30	0.20	0.36	0.38	0.27	0.35	0.18	0.33	0.21	0.29	**0.28**	-3.2%	-0.9%	0.7%
Sweden	0.67	0.78	0.60	0.62	0.73	0.60	0.62	0.59	0.62	0.68	**0.67**	-1.0%	0.1%	1.7%
Switzerland	0.32	0.38	0.38	0.37	0.37	0.33	0.33	0.33	0.36	0.35	**0.34**	-3.0%	0.6%	0.9%
Turkey	0.52	0.57	0.58	0.40	0.65	0.65	0.56	0.57	0.84	0.74	**0.52**	-28.7%	0.1%	1.3%
Ukraine	0.11	0.10	0.14	0.08	0.05	0.07	0.09	0.10	0.06	0.07	**0.10**	37.6%	-1.0%	0.2%
United Kingdom	0.06	0.05	0.05	0.06	0.06	0.05	0.06	0.05	0.06	0.06	**0.05**	-25.8%	-1.8%	0.1%
Other Europe	0.27	0.27	0.35	0.32	0.31	0.34	0.28	0.37	0.31	0.28	**0.37**	32.9%	3.4%	0.9%
Total Europe	5.66	6.18	6.49	6.28	6.17	6.28	5.60	6.16	5.97	6.22	**6.12**	-1.3%	0.8%	15.2%
Azerbaijan	0.03	0.02	0.01	0.01	0.02	0.02	0.02	0.02	0.01	0.01	**0.01**	19.3%	-7.6%	♦
Belarus	†	†	†	†	†	†	†	†	†	†	**†**	-14.3%	22.7%	♦
Kazakhstan	0.08	0.08	0.08	0.08	0.09	0.11	0.11	0.10	0.09	0.09	**0.09**	-5.9%	0.9%	0.2%
Russian Federation	1.62	1.61	1.78	1.69	1.63	1.78	1.77	1.82	1.84	2.01	**2.02**	0.9%	2.2%	5.0%
Turkmenistan	†	†	†	†	†	†	†	†	†	†	**†**	82.7%	5.7%	♦
Uzbekistan	0.06	0.06	0.06	0.06	0.06	0.07	0.08	0.06	0.06	0.05	**0.05**	9.7%	-0.9%	0.1%
Other CIS	0.33	0.33	0.32	0.31	0.29	0.30	0.32	0.34	0.34	0.33	**0.33**	2.5%	0.1%	0.8%
Total CIS	2.11	2.10	2.25	2.16	2.09	2.27	2.30	2.33	2.36	2.49	**2.51**	1.1%	1.7%	6.2%
Iran	0.11	0.12	0.14	0.14	0.13	0.15	0.17	0.09	0.32	0.22	**0.14**	-35.9%	2.8%	0.3%
Iraq	0.03	0.04	0.05	0.03	0.02	0.03	0.02	0.02	0.05	0.03	**0.03**	-2.4%	-1.7%	0.1%
Israel	†	†	†	†	†	–	–	–	–	–	**–**	–	-100.0%	–
Kuwait	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Oman	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Qatar	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Saudi Arabia	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
United Arab Emirates	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Other Middle East	0.04	0.04	0.04	0.03	0.01	0.01	0.01	0.01	0.02	0.02	**0.02**	-11.1%	-9.5%	♦
Total Middle East	0.18	0.21	0.23	0.19	0.16	0.19	0.20	0.12	0.38	0.27	**0.18**	-30.7%	0.1%	0.5%
Algeria	†	†	†	†	†	†	†	†	†	†	**†**	-81.3%	-31.3%	♦
Egypt	0.13	0.13	0.13	0.13	0.13	0.13	0.12	0.12	0.13	0.14	**0.14**	-1.9%	0.7%	0.3%
Morocco	0.02	0.02	0.03	0.02	0.02	0.01	0.01	0.02	0.01	0.01	**0.01**	-5.8%	-9.1%	♦
South Africa	0.03	0.01	0.01	0.02	0.01	0.01	0.02	0.01	0.01	0.01	**0.01**	101.4%	-8.0%	♦
Eastern Africa	0.55	0.57	0.61	0.64	0.63	0.60	0.62	0.66	0.65	0.69	**0.73**	7.0%	2.9%	1.8%
Middle Africa	0.17	0.17	0.19	0.20	0.20	0.21	0.24	0.27	0.29	0.31	**0.31**	2.0%	6.3%	0.8%
Western Africa	0.17	0.17	0.17	0.17	0.15	0.15	0.18	0.19	0.21	0.21	**0.22**	5.9%	2.6%	0.6%
Other Northern Africa	†	†	†	†	†	†	†	†	†	†	**†**	-38.5%	-6.8%	♦
Other Southern Africa	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	**0.02**	-23.6%	-3.6%	♦
Total Africa	1.10	1.10	1.15	1.21	1.17	1.13	1.21	1.28	1.32	1.38	**1.45**	4.7%	2.8%	3.6%
Australia	0.19	0.17	0.19	0.14	0.14	0.17	0.13	0.16	0.13	0.14	**0.15**	10.8%	-2.5%	0.4%
Bangladesh	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	**0.01**	-2.8%	-2.9%	♦
China	6.83	8.52	8.92	10.33	10.80	11.11	11.16	11.42	12.08	12.50	**12.25**	-1.7%	6.0%	30.4%
China Hong Kong SAR	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
India	1.31	1.14	1.29	1.36	1.29	1.24	1.30	1.33	1.54	1.55	**1.51**	-2.2%	1.4%	3.8%
Indonesia	0.12	0.13	0.17	0.15	0.13	0.18	0.18	0.21	0.20	0.23	**0.23**	1.4%	6.6%	0.6%
Japan	0.82	0.76	0.78	0.80	0.83	0.77	0.76	0.77	0.70	0.73	**0.73**	0.2%	-1.1%	1.8%
Malaysia	0.08	0.09	0.12	0.13	0.13	0.19	0.26	0.25	0.25	0.26	**0.30**	15.8%	14.3%	0.8%
New Zealand	0.25	0.23	0.23	0.24	0.24	0.25	0.24	0.25	0.24	0.23	**0.23**	-0.3%	-0.9%	0.6%
Pakistan	0.30	0.11	0.31	0.32	0.32	0.33	0.29	0.28	0.34	0.38	**0.36**	-5.8%	1.6%	0.9%
Philippines	0.10	0.10	0.10	0.09	0.08	0.08	0.09	0.09	0.08	0.07	**0.09**	29.6%	-0.9%	0.2%
Singapore	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
South Korea	0.05	0.04	0.04	0.03	0.02	0.03	0.03	0.03	0.03	0.04	**0.03**	-21.3%	-4.5%	0.1%
Sri Lanka	0.05	0.03	0.07	0.04	0.06	0.04	0.04	0.06	0.05	0.05	**0.07**	41.7%	3.9%	0.2%
Taiwan	0.04	0.06	0.05	0.04	0.04	0.06	0.05	0.04	0.05	0.03	**0.03**	14.8%	-1.9%	0.1%
Thailand	0.08	0.08	0.05	0.05	0.04	0.03	0.04	0.07	0.06	0.04	**0.04**	-0.1%	-5.9%	0.1%
Vietnam	0.41	0.53	0.57	0.61	0.55	0.62	0.84	0.80	0.63	0.69	**0.71**	3.3%	5.8%	1.8%
Other Asia Pacific	0.47	0.47	0.55	0.53	0.50	0.58	0.61	0.67	0.62	0.67	**0.70**	4.5%	4.2%	1.7%
Total Asia Pacific	11.10	12.46	13.44	14.86	15.19	15.70	16.04	16.45	17.00	17.61	**17.44**	-0.7%	4.6%	43.3%
Total World	**34.69**	**35.95**	**37.17**	**37.93**	**37.60**	**38.67**	**38.99**	**39.84**	**40.15**	**41.09**	**40.26**	**-1.8%**	**1.5%**	**100.0%**
of which: OECD	14.27	14.23	14.32	14.02	13.79	13.97	13.85	14.10	13.73	14.02	**13.57**	-3.0%	-0.5%	33.7%
Non-OECD	20.42	21.72	22.85	23.91	23.81	24.70	25.14	25.74	26.42	27.07	**26.69**	-1.1%	2.7%	66.3%
European Union	3.05	3.26	3.60	3.60	3.24	3.30	2.79	3.26	3.02	3.25	**3.24**	0.2%	0.6%	8.1%

*Based on gross generation and not accounting for cross-border electricity supply. "Input-equivalent" energy is the amount of fuel that would be required by thermal power stations to generate the reported electricity output.
†Less than 0.005.
♦Less than 0.05%.
Notes: Annual changes and share of total are calculated using exajoules figures. Growth rates are adjusted for leap years.

Renewable energy

Renewables consumption*

Exajoules (input-equivalent)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	**2021**	Growth rate per annum 2021	Growth rate per annum 2011-21	Share 2021
Canada	0.28	0.32	0.33	0.34	0.48	0.54	0.55	0.56	0.56	0.57	**0.58**	2.2%	7.3%	1.4%
Mexico	0.09	0.11	0.12	0.14	0.17	0.18	0.20	0.24	0.31	0.35	**0.39**	9.4%	15.4%	1.0%
US	3.25	3.50	3.99	4.30	4.53	5.13	5.60	5.88	6.20	6.65	**7.48**	12.8%	8.7%	18.7%
Total North America	3.63	3.94	4.44	4.78	5.18	5.85	6.34	6.68	7.07	7.57	**8.44**	11.8%	8.8%	21.2%
Argentina	0.05	0.06	0.07	0.07	0.08	0.08	0.09	0.10	0.14	0.16	**0.20**	26.1%	15.6%	0.5%
Brazil	0.93	0.96	1.12	1.30	1.55	1.61	1.75	1.96	2.16	2.19	**2.39**	9.5%	9.9%	6.0%
Chile	0.05	0.07	0.08	0.08	0.10	0.13	0.16	0.19	0.22	0.22	**0.29**	27.3%	18.4%	0.7%
Colombia	0.04	0.04	0.04	0.05	0.05	0.05	0.05	0.06	0.06	0.06	**0.07**	14.9%	5.4%	0.2%
Ecuador	†	†	†	0.01	0.01	0.01	0.01	0.01	0.01	0.01	**0.01**	-6.4%	8.2%	◆
Peru	0.02	0.02	0.03	0.03	0.03	0.03	0.04	0.04	0.05	0.05	**0.05**	4.5%	11.2%	0.1%
Trinidad & Tobago	†	†	†	†	†	†	†	†	†	†	**†**	-0.4%	1.0%	◆
Venezuela	†	†	†	†	†	†	†	†	†	†	**†**	-0.3%	41.3%	◆
Central America	0.07	0.08	0.09	0.10	0.12	0.13	0.13	0.15	0.17	0.16	**0.17**	7.3%	9.5%	0.4%
Other Caribbean	0.03	0.03	0.04	0.03	0.04	0.04	0.04	0.04	0.05	0.06	**0.07**	14.3%	10.0%	0.2%
Other South America	0.02	0.02	0.03	0.04	0.06	0.07	0.08	0.09	0.10	0.11	**0.11**	1.0%	17.6%	0.3%
Total S. & Cent. America	1.21	1.29	1.50	1.72	2.03	2.15	2.35	2.65	2.95	3.02	**3.35**	11.4%	10.8%	8.4%
Austria	0.10	0.10	0.11	0.12	0.14	0.14	0.15	0.15	0.16	0.15	**0.15**	-1.2%	4.8%	0.4%
Belgium	0.10	0.12	0.13	0.14	0.16	0.16	0.18	0.19	0.21	0.26	**0.25**	-1.9%	9.3%	0.6%
Bulgaria	0.01	0.02	0.03	0.03	0.04	0.04	0.04	0.05	0.05	0.05	**0.06**	6.7%	18.2%	0.1%
Croatia	†	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.03	0.03	**0.04**	15.1%	29.5%	0.1%
Cyprus	†	†	†	†	†	†	†	†	0.01	0.01	**0.01**	20.3%	12.5%	◆
Czech Republic	0.07	0.08	0.08	0.09	0.09	0.09	0.10	0.10	0.10	0.10	**0.10**	-0.1%	4.0%	0.3%
Denmark	0.15	0.16	0.17	0.19	0.20	0.20	0.23	0.22	0.24	0.24	**0.27**	12.8%	6.0%	0.7%
Estonia	0.01	0.02	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.03	**0.04**	13.5%	10.6%	0.1%
Finland	0.14	0.14	0.15	0.16	0.17	0.17	0.20	0.22	0.23	0.22	**0.25**	12.8%	6.0%	0.6%
France	0.30	0.37	0.40	0.44	0.50	0.51	0.56	0.61	0.69	0.73	**0.74**	1.4%	9.4%	1.9%
Germany	1.24	1.40	1.45	1.58	1.83	1.82	2.08	2.16	2.31	2.44	**2.28**	-6.2%	6.3%	5.7%
Greece	0.05	0.06	0.08	0.08	0.09	0.10	0.10	0.11	0.12	0.14	**0.16**	9.8%	13.2%	0.4%
Hungary	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.05	0.06	0.07	**0.08**	20.3%	8.7%	0.2%
Iceland	0.04	0.05	0.05	0.05	0.05	0.05	0.05	0.06	0.06	0.05	**0.05**	-2.9%	1.7%	0.1%
Ireland	0.05	0.05	0.05	0.06	0.07	0.07	0.09	0.10	0.11	0.13	**0.11**	-14.2%	7.9%	0.3%
Italy	0.44	0.58	0.66	0.68	0.70	0.72	0.74	0.72	0.73	0.74	**0.76**	3.7%	5.6%	1.9%
Latvia	†	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	**0.01**	0.2%	16.0%	◆
Lithuania	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.03	0.03	**0.03**	-7.6%	11.8%	0.1%
Luxembourg	†	†	†	0.01	0.01	0.01	0.01	0.01	0.01	0.01	**0.02**	5.7%	15.1%	◆
Netherlands	0.15	0.15	0.14	0.14	0.16	0.17	0.19	0.21	0.26	0.36	**0.43**	18.3%	11.1%	1.1%
North Macedonia	†	†	†	†	†	†	†	†	†	†	**†**	-7.6%	54.5%	◆
Norway	0.02	0.02	0.03	0.03	0.03	0.04	0.05	0.05	0.08	0.11	**0.13**	16.3%	19.8%	0.3%
Poland	0.15	0.19	0.19	0.22	0.24	0.23	0.24	0.24	0.28	0.30	**0.32**	8.9%	8.1%	0.8%
Portugal	0.14	0.15	0.17	0.17	0.17	0.18	0.18	0.18	0.19	0.19	**0.20**	7.1%	3.5%	0.5%
Romania	0.02	0.04	0.06	0.07	0.10	0.10	0.11	0.09	0.10	0.11	**0.10**	-4.2%	15.6%	0.3%
Slovakia	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	**0.04**	15.1%	7.2%	0.1%
Slovenia	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	**0.01**	0.8%	7.8%	◆
Spain	0.63	0.75	0.77	0.74	0.72	0.71	0.73	0.75	0.78	0.86	**0.97**	13.6%	4.4%	2.4%
Sweden	0.22	0.24	0.26	0.27	0.33	0.34	0.37	0.36	0.41	0.45	**0.49**	8.1%	8.5%	1.2%
Switzerland	0.02	0.02	0.02	0.03	0.03	0.04	0.04	0.05	0.05	0.06	**0.06**	4.6%	12.1%	0.1%
Turkey	0.06	0.08	0.11	0.12	0.17	0.24	0.29	0.38	0.43	0.50	**0.61**	22.0%	26.4%	1.5%
Ukraine	†	0.01	0.01	0.02	0.02	0.02	0.02	0.03	0.06	0.09	**0.11**	16.7%	44.4%	0.3%
United Kingdom	0.36	0.42	0.55	0.66	0.84	0.84	0.99	1.12	1.22	1.35	**1.24**	-8.1%	13.2%	3.1%
Other Europe	†	†	†	†	†	†	0.01	0.01	0.02	0.02	**0.03**	14.2%	41.6%	0.1%
Total Europe	4.55	5.30	5.83	6.24	7.00	7.12	7.91	8.33	9.10	9.91	**10.14**	2.6%	8.3%	25.4%
Azerbaijan	–	–	†	†	†	†	†	†	†	†	**†**	-0.3%	–	◆
Belarus	†	†	†	†	†	†	†	†	0.01	0.01	**0.01**	15.1%	13.4%	◆
Kazakhstan	†	†	†	†	†	†	†	0.01	0.01	0.02	**0.03**	30.5%	168.1%	0.1%
Russian Federation	0.01	†	†	0.01	0.01	0.01	0.01	0.02	0.02	0.04	**0.06**	53.9%	27.3%	0.2%
Turkmenistan	†	†	†	†	†	†	†	†	†	†	**†**	-0.4%	30.6%	◆
Uzbekistan	–	–	–	–	–	†	†	†	†	†	**†**	625.5%	–	◆
Other CIS	†	†	†	†	†	†	†	†	†	†	**†**	34.7%	51.2%	◆
Total CIS	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.03	0.04	0.07	**0.10**	41.4%	29.4%	0.3%
Iran	†	†	†	†	†	†	†	0.01	0.01	0.02	**0.02**	2.2%	21.9%	◆
Iraq	–	–	†	†	†	†	†	†	†	†	**†**	-0.4%	–	◆
Israel	†	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.03	0.04	**0.06**	28.7%	32.8%	0.1%
Kuwait	–	–	†	†	†	†	†	†	†	†	**†**	-0.4%	–	◆
Oman	–	–	†	†	†	†	†	†	†	†	**†**	15.2%	–	◆
Qatar	†	†	†	†	†	†	†	†	†	†	**†**	◆	0.5%	◆
Saudi Arabia	†	†	†	†	†	†	†	†	†	†	**0.01**	300.2%	64.6%	◆
United Arab Emirates	†	†	†	†	†	†	0.01	0.01	0.04	0.04	**0.05**	12.6%	72.7%	0.1%
Other Middle East	†	†	†	†	†	0.01	0.01	0.02	0.03	0.04	**0.04**	6.8%	68.5%	0.1%
Total Middle East	0.01	0.01	0.01	0.02	0.02	0.04	0.05	0.07	0.12	0.15	**0.18**	18.0%	37.3%	0.4%
Algeria	†	†	†	†	†	†	0.01	0.01	0.01	0.01	**0.01**	-2.7%	42.8%	◆
Egypt	0.02	0.02	0.02	0.01	0.02	0.03	0.03	0.03	0.06	0.09	**0.10**	7.9%	19.0%	0.2%
Morocco	0.01	0.01	0.01	0.02	0.02	0.03	0.03	0.05	0.06	0.06	**0.07**	13.2%	25.2%	0.2%
South Africa	0.01	0.01	0.01	0.03	0.06	0.08	0.11	0.13	0.14	0.15	**0.16**	4.9%	35.6%	0.4%
Eastern Africa	0.03	0.04	0.04	0.06	0.08	0.08	0.08	0.09	0.10	0.10	**0.11**	7.6%	12.5%	0.3%
Middle Africa	†	†	†	†	†	†	†	†	†	†	**†**	-0.1%	3.4%	◆
Western Africa	†	†	†	†	0.01	0.01	0.01	0.01	0.01	0.01	**0.02**	23.5%	21.1%	◆
Other Northern Africa	†	†	†	0.01	0.01	0.01	0.01	0.01	0.01	0.01	**0.01**	-4.8%	19.3%	◆
Other Southern Africa	†	†	†	†	†	†	†	†	†	0.01	**0.01**	4.5%	6.3%	◆
Total Africa	0.07	0.08	0.09	0.13	0.19	0.23	0.27	0.32	0.39	0.44	**0.47**	7.6%	20.5%	1.2%
Australia	0.12	0.15	0.18	0.20	0.23	0.25	0.26	0.32	0.40	0.48	**0.59**	22.4%	16.8%	1.5%
Bangladesh	†	†	†	†	†	†	†	†	†	†	**†**	15.1%	20.6%	◆
China	1.16	1.49	1.99	2.45	2.90	3.78	5.06	6.37	7.38	8.52	**11.32**	33.1%	25.6%	28.4%
China Hong Kong SAR	†	†	†	†	†	†	†	†	†	†	**†**	13.7%	3.6%	◆
India	0.49	0.56	0.63	0.71	0.78	0.88	1.05	1.31	1.48	1.58	**1.79**	13.2%	13.9%	4.5%
Indonesia	0.11	0.12	0.13	0.16	0.13	0.21	0.21	0.40	0.49	0.57	**0.63**	11.2%	19.5%	1.6%
Japan	0.34	0.38	0.45	0.56	0.72	0.75	0.91	1.01	1.09	1.20	**1.32**	9.9%	14.3%	3.3%
Malaysia	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.04	0.05	0.05	**0.06**	22.8%	13.0%	0.2%
New Zealand	0.09	0.09	0.09	0.10	0.11	0.11	0.11	0.10	0.11	0.11	**0.11**	3.2%	2.4%	0.3%
Pakistan	†	†	†	0.01	0.01	0.02	0.04	0.05	0.05	0.04	**0.05**	23.2%	70.3%	0.1%
Philippines	0.11	0.11	0.11	0.12	0.13	0.15	0.15	0.15	0.15	0.15	**0.15**	-4.0%	3.3%	0.4%
Singapore	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	**0.01**	17.2%	5.9%	◆
South Korea	0.10	0.11	0.13	0.18	0.21	0.22	0.28	0.32	0.35	0.34	**0.44**	29.6%	16.1%	1.1%
Sri Lanka	†	†	†	†	†	†	0.01	0.01	0.01	0.01	**0.02**	24.9%	27.2%	◆
Taiwan	0.04	0.04	0.04	0.04	0.05	0.05	0.06	0.07	0.08	0.10	**0.12**	16.3%	11.7%	0.3%
Thailand	0.08	0.10	0.13	0.16	0.18	0.21	0.24	0.28	0.32	0.31	**0.32**	3.2%	15.3%	0.8%
Vietnam	†	†	†	†	†	†	†	0.01	0.06	0.11	**0.27**	134.4%	73.1%	0.7%
Other Asia Pacific	†	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	**0.03**	17.8%	18.0%	0.1%
Total Asia Pacific	2.67	3.19	3.94	4.73	5.50	6.68	8.41	10.46	12.06	13.64	**17.22**	26.7%	20.5%	43.1%
Total World	**12.14**	**13.82**	**15.81**	**17.63**	**19.95**	**22.09**	**25.36**	**28.53**	**31.74**	**34.80**	**39.91**	**15.0%**	**12.6%**	**100.0%**
of which: OECD	8.89	10.01	11.13	12.06	13.43	14.32	15.83	16.82	18.16	19.63	**21.11**	7.9%	9.0%	52.9%
Non-OECD	3.25	3.81	4.68	5.57	6.52	7.77	9.53	11.72	13.57	15.17	**18.80**	24.2%	19.2%	47.1%
European Union	4.05	4.71	5.05	5.33	5.86	5.90	6.45	6.63	7.19	7.72	**7.92**	2.9%	6.9%	19.8%

*Based on gross generation and not accounting for cross-border electricity supply. "Input-equivalent" energy is the amount of fuel that would be required by thermal power stations to generate the reported electricity output.
Details on thermal efficiency assumptions are available in the appendices and definitions page and at *bp.com/statisticalreview*.
†Less than 0.005.
◆Less than 0.05%.
Notes: Growth rates are adjusted for leap years.
Annual changes and share of total are calculated using exajoules figures and incorporate adjustments for assumed changes in thermal efficiency.

Renewables: Renewable energy generation*

Terawatt-hours	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Growth rate per annum 2021	Growth rate per annum 2011-21	Share 2021
Canada	21.0	23.1	23.7	24.7	39.8	46.3	45.9	47.5	47.3	49.3	**50.0**	1.6%	9.1%	1.4%
Mexico	9.1	10.5	11.6	13.8	16.6	18.2	19.9	23.9	31.5	36.2	**39.7**	10.0%	15.9%	1.1%
US	201.9	228.3	266.2	296.8	315.8	367.4	417.7	451.6	483.7	547.7	**624.5**	14.3%	12.0%	17.1%
Total North America	231.9	261.9	301.5	335.3	372.2	432.0	483.6	523.0	562.5	633.2	**714.1**	13.1%	11.9%	19.5%
Argentina	1.4	1.9	2.1	2.1	2.1	1.7	2.0	3.1	7.4	13.0	**17.2**	32.8%	28.1%	0.5%
Brazil	35.3	40.8	47.6	59.3	71.6	84.9	96.1	106.3	117.6	126.5	**144.0**	14.1%	15.1%	3.9%
Chile	4.7	6.4	7.4	6.9	9.0	11.7	15.0	17.9	20.7	22.0	**28.5**	30.3%	19.9%	0.8%
Colombia	1.4	1.5	1.4	1.8	1.9	2.0	2.0	2.2	2.6	3.0	**3.2**	6.1%	8.5%	0.1%
Ecuador	0.3	0.3	0.4	0.5	0.5	0.6	0.5	0.5	0.7	0.6	**0.5**	-12.0%	6.2%	◆
Peru	0.7	0.7	1.2	1.7	1.7	1.6	1.8	2.8	2.9	3.2	**3.3**	2.9%	17.0%	0.1%
Trinidad & Tobago	†	†	†	†	†	†	†	†	†	†	**†**	–	1.6%	◆
Venezuela	†	†	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	**0.1**	–	41.7%	◆
Central America	6.7	7.8	8.6	9.8	11.6	13.1	12.9	15.2	16.7	16.0	**17.1**	7.4%	9.9%	0.5%
Other Caribbean	1.3	1.7	2.3	2.3	2.5	2.6	3.0	3.2	4.4	5.2	**5.9**	15.1%	16.8%	0.2%
Other South America	1.5	1.7	1.9	3.1	5.0	6.1	7.1	8.2	8.4	9.5	**9.4**	-0.2%	20.2%	0.3%
Total S. & Cent. America	53.3	62.8	72.9	87.6	106.1	124.5	140.6	159.6	181.6	199.1	**229.3**	15.5%	15.7%	6.3%
Austria	6.7	7.5	8.5	9.2	10.4	11.1	12.8	12.4	13.8	13.4	**13.3**	-1.0%	7.1%	0.4%
Belgium	8.2	10.1	11.4	11.9	14.1	13.9	15.5	16.9	19.2	23.1	**22.4**	-2.9%	10.6%	0.6%
Bulgaria	1.0	2.1	2.8	2.8	3.1	3.2	3.3	4.2	4.6	4.7	**4.6**	-0.6%	16.3%	0.1%
Croatia	0.3	0.4	0.7	0.9	1.1	1.5	1.8	2.1	2.5	2.9	**3.3**	16.3%	29.3%	0.1%
Cyprus	0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.6	**0.8**	28.1%	15.7%	◆
Czech Republic	5.2	6.0	6.5	7.3	7.6	7.4	7.7	7.8	8.0	8.0	**8.0**	0.1%	4.4%	0.2%
Denmark	14.2	14.8	16.0	18.0	18.9	18.4	21.8	20.7	23.1	23.4	**26.0**	11.4%	6.3%	0.7%
Estonia	1.2	1.4	1.2	1.3	1.5	1.5	1.8	1.9	2.1	2.7	**3.1**	13.5%	10.4%	0.1%
Finland	11.7	11.6	12.7	12.8	13.7	14.5	16.7	18.8	19.4	19.7	**22.1**	12.4%	6.6%	0.6%
France	19.6	25.5	28.6	31.5	37.5	39.1	44.0	49.5	57.1	63.3	**62.8**	-0.6%	12.3%	1.7%
Germany	106.8	121.7	129.0	141.4	168.3	167.7	194.7	204.4	220.6	231.8	**217.6**	-5.9%	7.4%	5.9%
Greece	4.1	5.7	8.0	7.7	8.8	9.4	9.8	10.4	12.1	14.2	**15.8**	11.6%	14.4%	0.4%
Hungary	2.5	2.4	2.6	2.8	3.0	3.0	3.3	3.5	4.5	5.3	**6.7**	26.4%	10.4%	0.2%
Iceland	4.7	5.2	5.3	5.2	5.0	5.1	5.2	6.0	6.0	6.0	**5.8**	-2.6%	2.1%	0.2%
Ireland	4.7	4.5	5.0	5.7	7.1	6.8	8.2	9.5	10.9	12.6	**10.7**	-14.2%	8.6%	0.3%
Italy	37.1	50.3	59.2	62.1	63.4	65.6	67.7	65.6	69.4	68.8	**71.4**	4.1%	6.8%	2.0%
Latvia	0.2	0.4	0.6	0.8	0.9	1.0	1.1	1.1	1.1	1.0	**1.0**	-7.6%	17.6%	◆
Lithuania	0.6	0.8	1.0	1.1	1.3	1.6	1.9	1.8	2.1	2.3	**2.0**	-10.1%	12.4%	0.1%
Luxembourg	0.2	0.2	0.3	0.3	0.3	0.3	0.5	0.6	0.7	0.9	**1.0**	7.7%	17.9%	◆
Netherlands	12.3	12.4	12.1	11.6	13.6	14.6	17.4	18.8	22.7	33.0	**40.1**	22.1%	12.6%	1.1%
North Macedonia	†	†	†	0.1	0.2	0.2	0.2	0.2	0.2	0.2	**0.2**	-7.5%	65.6%	◆
Norway	1.6	1.9	2.3	2.5	2.8	2.4	3.1	4.1	5.9	10.3	**12.2**	18.9%	22.3%	0.3%
Poland	10.8	14.8	14.6	17.7	20.7	20.7	21.6	19.6	23.5	25.3	**27.8**	10.1%	9.9%	0.8%
Portugal	12.6	13.8	15.7	16.0	15.7	16.5	16.7	17.0	18.6	18.0	**19.2**	6.8%	4.3%	0.5%
Romania	1.6	2.9	5.2	6.5	9.6	8.9	9.8	8.5	9.1	9.2	**9.0**	-2.3%	18.9%	0.2%
Slovakia	1.2	1.4	1.5	2.0	2.2	2.3	2.2	2.2	2.3	2.3	**2.7**	16.6%	8.3%	0.1%
Slovenia	0.3	0.4	0.5	0.5	0.5	0.6	0.6	0.5	0.6	0.7	**0.6**	-6.7%	6.7%	◆
Spain	55.6	66.4	74.2	71.1	68.9	68.2	69.5	69.8	73.8	83.2	**95.8**	15.4%	5.6%	2.6%
Sweden	17.6	19.4	21.3	22.0	27.1	27.1	29.9	28.9	33.5	39.7	**42.1**	6.2%	9.1%	1.2%
Switzerland	1.6	1.9	2.2	2.6	2.8	3.2	3.7	3.9	4.2	4.7	**5.1**	8.1%	12.1%	0.1%
Turkey	5.8	7.4	9.8	12.0	16.5	23.8	29.9	38.8	44.6	51.5	**62.7**	22.0%	27.0%	1.7%
Ukraine	0.3	0.8	1.3	1.7	1.7	1.6	1.9	2.6	5.4	9.4	**11.0**	17.6%	45.8%	0.3%
United Kingdom	29.5	35.9	48.5	58.6	77.1	77.6	93.0	104.6	113.7	127.8	**116.9**	-8.4%	14.7%	3.2%
Other Europe	0.1	0.1	0.1	0.2	0.3	0.4	0.7	1.0	2.2	2.4	**2.8**	14.6%	43.6%	0.1%
Total Europe	380.0	450.3	509.0	548.4	626.1	639.5	718.3	758.4	837.8	922.7	**946.5**	2.9%	9.6%	25.9%
Azerbaijan	–	–	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	**0.2**	0.2%	–	◆
Belarus	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.5	0.6	**0.7**	18.6%	22.2%	◆
Kazakhstan	†	†	†	†	0.2	0.4	0.4	0.5	1.1	2.3	**3.0**	31.0%	169.5%	0.1%
Russian Federation	0.6	0.5	0.5	0.8	1.0	1.1	1.2	1.4	1.8	3.5	**5.4**	54.6%	25.4%	0.1%
Turkmenistan	†	†	†	†	†	†	†	†	†	†	**†**	–	31.3%	◆
Uzbekistan	–	–	–	–	–	†	†	†	†	†	**†**	628.2%	–	◆
Other CIS	†	†	†	†	†	†	†	0.1	0.1	0.1	**0.2**	36.6%	51.5%	◆
Total CIS	0.7	0.6	0.7	1.0	1.4	1.8	2.1	2.5	3.8	6.8	**9.6**	41.6%	30.6%	0.3%
Iran	0.2	0.3	0.2	0.2	0.2	0.2	0.4	1.0	1.2	1.8	**1.8**	2.6%	22.7%	◆
Iraq	–	–	†	0.1	0.1	0.1	0.1	0.4	0.4	0.4	**0.4**	–	–	◆
Israel	0.3	0.5	0.5	0.9	1.3	1.8	1.8	2.0	3.3	4.4	**5.7**	30.3%	35.5%	0.2%
Kuwait	–	–	†	†	†	†	0.1	0.1	0.1	0.1	**0.1**	–	–	◆
Oman	–	–	†	†	†	†	†	†	†	0.3	**0.4**	15.6%	–	◆
Qatar	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	**0.1**	–	0.6%	◆
Saudi Arabia	†	†	†	†	†	†	0.1	0.2	0.2	0.2	**0.8**	301.7%	65.5%	◆
United Arab Emirates	†	†	0.1	0.3	0.3	0.3	0.7	1.3	3.8	4.6	**5.2**	13.0%	73.6%	0.1%
Other Middle East	†	†	†	0.1	0.3	1.1	1.3	2.2	3.0	3.9	**4.1**	7.2%	70.3%	0.1%
Total Middle East	0.7	0.9	1.1	1.8	2.3	3.7	4.7	7.2	12.1	15.7	**18.5**	18.6%	39.4%	0.5%
Algeria	†	†	†	0.1	0.1	0.3	0.5	0.6	0.6	0.7	**0.7**	-2.4%	43.6%	◆
Egypt	1.7	1.8	1.6	1.2	1.9	2.6	2.7	3.5	6.5	9.7	**10.5**	8.3%	19.6%	0.3%
Morocco	0.7	0.7	1.2	1.9	2.5	3.4	3.5	4.8	6.3	6.1	**6.9**	13.6%	25.9%	0.2%
South Africa	0.5	0.5	0.8	2.5	5.8	7.9	11.3	13.1	13.9	15.7	**16.5**	5.4%	41.1%	0.5%
Eastern Africa	3.2	3.5	4.1	5.5	7.6	7.9	8.1	8.9	10.6	10.3	**11.1**	8.1%	13.4%	0.3%
Middle Africa	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	**0.1**	0.1%	4.4%	◆
Western Africa	0.2	0.3	0.4	0.4	0.6	0.8	0.8	1.0	1.3	1.5	**1.9**	24.7%	22.7%	0.1%
Other Northern Africa	0.1	0.2	0.4	0.5	0.5	0.6	0.6	0.6	0.8	0.8	**0.7**	-4.4%	20.0%	◆
Other Southern Africa	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.5	0.5	**0.6**	5.1%	7.6%	◆
Total Africa	6.8	7.6	8.8	12.4	19.3	23.8	27.9	33.0	40.5	45.4	**49.0**	8.1%	21.7%	1.3%
Australia	11.1	13.2	16.4	18.3	21.7	24.1	25.7	32.2	41.2	49.9	**61.3**	23.3%	18.7%	1.7%
Bangladesh	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.4	**0.5**	15.5%	21.3%	◆
China	104.3	136.8	183.8	229.5	279.1	369.5	502.0	636.4	742.0	863.2	**1152.5**	33.9%	27.2%	31.5%
China Hong Kong SAR	†	†	†	†	0.1	0.1	0.1	0.1	0.1	0.1	**0.1**	2.0%	6.1%	◆
India	41.9	49.5	55.9	63.0	69.9	79.8	99.1	123.9	141.1	152.0	**171.9**	13.3%	15.2%	4.7%
Indonesia	9.6	9.7	9.6	10.3	10.5	11.3	13.4	26.7	26.9	28.6	**31.5**	10.5%	12.6%	0.9%
Japan	31.0	34.2	41.2	52.2	68.2	72.3	87.5	98.7	106.7	117.8	**130.3**	10.9%	15.4%	3.6%
Malaysia	1.5	1.5	1.2	0.9	1.0	1.1	1.1	2.0	2.6	2.8	**3.1**	12.3%	7.4%	0.1%
New Zealand	8.9	9.3	9.6	10.6	11.4	11.3	11.1	11.1	11.4	11.5	**11.9**	3.6%	2.9%	0.3%
Pakistan	†	0.1	0.3	0.6	1.1	2.2	3.8	4.9	4.8	4.6	**5.7**	24.0%	70.7%	0.2%
Philippines	10.1	10.5	9.9	10.7	12.3	13.9	13.6	13.9	14.0	14.4	**13.5**	-6.1%	2.9%	0.4%
Singapore	0.6	0.6	0.7	0.8	0.9	0.9	0.9	0.9	1.0	1.0	**1.2**	18.3%	6.6%	◆
South Korea	7.6	8.6	10.2	14.7	17.3	18.9	24.1	27.2	30.5	31.1	**40.2**	29.8%	18.1%	1.1%
Sri Lanka	0.1	0.2	0.3	0.3	0.4	0.5	0.7	0.7	1.0	1.3	**1.6**	25.6%	28.1%	◆
Taiwan	3.4	3.4	3.8	3.9	4.3	4.5	5.2	6.4	7.9	10.4	**12.1**	17.6%	13.6%	0.3%
Thailand	4.1	5.2	7.2	9.0	10.0	12.5	14.9	17.9	21.4	20.5	**21.9**	6.9%	18.3%	0.6%
Vietnam	0.1	0.1	0.1	0.1	0.3	0.3	0.4	0.7	6.1	12.1	**28.3**	135.5%	75.4%	0.8%
Other Asia Pacific	0.4	0.5	0.6	0.8	0.9	1.0	1.2	1.5	2.0	2.2	**2.6**	18.8%	19.4%	0.1%
Total Asia Pacific	235.0	283.6	351.1	426.0	509.7	624.4	805.1	1005.5	1160.9	1323.7	**1690.1**	28.0%	21.8%	46.2%
Total World	**908.3**	**1067.8**	**1245.1**	**1412.5**	**1637.2**	**1849.6**	**2182.3**	**2489.2**	**2799.2**	**3146.6**	**3657.2**	**16.5%**	**14.9%**	**100.0%**
of which: OECD	673.4	779.5	886.9	976.5	1112.8	1197.6	1351.0	1453.5	1592.3	1766.1	**1910.1**	8.4%	11.0%	52.2%
Non-OECD	234.9	288.3	358.2	436.0	524.3	652.0	831.3	1035.7	1206.9	1380.5	**1747.2**	26.9%	22.2%	47.8%
European Union	336.4	397.2	439.5	465.5	519.8	525.5	580.9	597.5	655.9	710.6	**730.2**	3.0%	8.1%	20.0%

*Renewable energy is based on gross generation from renewable sources including wind, geothermal, solar, biomass and waste, and not accounting for cross-border electricity supply.
†Less than 0.05.
◆Less than 0.05%.
Notes: Growth rates are adjusted for leap years.
Annual changes and share of total are calculated using terawatt-hours.

Renewable energy: Generation by source*

									2021 Growth rate			
Terawatt-hours	Wind	Solar	Other renewables‡	2020 Total	Wind	Solar	Other renewables‡	**2021 Total**	Wind	Solar	Other renewables‡	**Total**
Canada	35.6	4.3	9.4	49.3	35.1	5.2	9.7	**50.0**	-1.2%	20.9%	3.6%	**1.6%**
Mexico	19.7	9.5	7.0	36.2	20.9	11.9	6.9	**39.7**	6.4%	26.3%	-1.6%	**10.0%**
US	341.4	132.0	74.3	547.7	383.6	165.4	75.5	**624.5**	12.7%	25.6%	1.9%	**14.3%**
Total North America	396.7	145.8	90.7	633.2	439.6	182.4	92.1	**714.1**	11.1%	25.5%	1.8%	**13.1%**
Argentina	9.4	1.3	2.3	13.0	12.9	2.2	2.1	**17.2**	37.9%	63.8%	-6.8%	**32.8%**
Brazil	57.1	10.7	58.7	126.5	72.3	16.8	55.0	**144.0**	27.1%	56.3%	-6.2%	**14.1%**
Chile	5.6	7.6	8.7	22.0	9.5	10.6	8.5	**28.5**	69.7%	39.5%	-3.0%	**30.3%**
Colombia	†	0.2	2.8	3.0	0.1	0.3	2.8	**3.2**	493.0%	66.8%	0.3%	**6.1%**
Ecuador	0.1	†	0.5	0.6	0.1	†	0.4	**0.5**	-19.4%	-2.1%	-11.6%	**-12.0%**
Peru	1.8	0.8	0.5	3.2	1.8	0.9	0.6	**3.3**	-0.4%	3.4%	13.7%	**2.9%**
Trinidad & Tobago	–	†	–	†	–	†	–	**†**	–	–	–	**–**
Venezuela	0.1	†	†	0.1	0.1	†	†	**0.1**	–	–	–	**–**
Central America	3.7	2.6	9.7	16.0	4.1	3.0	10.0	**17.1**	9.8%	17.3%	3.8%	**7.4%**
Other Caribbean	2.1	1.8	1.2	5.2	2.3	2.4	1.3	**5.9**	7.8%	31.6%	3.3%	**15.1%**
Other South America	5.5	0.8	3.1	9.5	5.1	1.0	3.3	**9.4**	-7.5%	26.1%	6.0%	**-0.2%**
Total S. & Cent. America	85.5	26.0	87.6	199.1	108.2	37.2	84.0	**229.3**	27.0%	43.5%	-3.9%	**15.5%**
Austria	6.8	2.0	4.6	13.4	6.8	2.1	4.4	**13.3**	-0.3%	4.3%	-4.3%	**-1.0%**
Belgium	12.8	5.1	5.3	23.1	11.9	5.6	4.9	**22.4**	-6.7%	10.1%	-6.5%	**-2.9%**
Bulgaria	1.5	1.5	1.7	4.7	1.4	1.5	1.7	**4.6**	-2.7%	0.9%	–	**-0.6%**
Croatia	1.7	0.1	1.1	2.9	2.1	0.1	1.2	**3.3**	20.5%	2.2%	10.9%	**16.3%**
Cyprus	0.2	0.3	0.1	0.6	0.2	0.5	†	**0.8**	2.8%	60.8%	-30.8%	**28.1%**
Czech Republic	0.7	2.2	5.1	8.0	0.6	2.2	5.3	**8.0**	-13.7%	-3.4%	3.5%	**0.1%**
Denmark	16.3	1.2	5.9	23.4	16.0	1.3	8.7	**26.0**	-1.6%	8.5%	47.8%	**11.4%**
Estonia	0.8	0.1	1.8	2.7	0.7	0.3	2.1	**3.1**	-11.8%	99.2%	19.4%	**13.5%**
Finland	8.0	0.2	11.5	19.7	8.2	0.3	13.6	**22.1**	2.7%	39.7%	18.7%	**12.4%**
France	39.7	12.9	10.7	63.3	37.0	14.6	11.2	**62.8**	-6.7%	13.3%	5.2%	**-0.6%**
Germany	132.1	48.6	51.1	231.8	117.7	49.0	50.9	**217.6**	-10.7%	1.0%	-0.1%	**-5.9%**
Greece	9.3	4.4	0.5	14.2	10.5	5.2	0.2	**15.8**	12.8%	16.5%	-60.8%	**11.6%**
Hungary	0.7	2.5	2.2	5.3	0.7	3.8	2.2	**6.7**	-0.3%	54.7%	2.4%	**26.4%**
Iceland	†	–	6.0	6.0	†	–	5.8	**5.8**	-8.4%	–	-2.6%	**-2.6%**
Ireland	11.5	0.1	0.9	12.6	9.7	0.1	1.0	**10.7**	-15.7%	♦	3.6%	**-14.2%**
Italy	18.6	24.6	25.7	68.8	20.6	25.1	25.8	**71.4**	11.1%	2.4%	0.7%	**4.1%**
Latvia	0.2	†	0.9	1.0	0.1	†	0.8	**1.0**	-21.1%	♦	-4.8%	**-7.6%**
Lithuania	1.6	0.1	0.6	2.3	1.4	0.1	0.6	**2.0**	-12.0%	-3.7%	-6.5%	**-10.1%**
Luxembourg	0.4	0.2	0.4	0.9	0.3	0.2	0.4	**1.0**	-3.2%	37.6%	5.1%	**7.7%**
Netherlands	15.3	8.8	8.8	33.0	17.9	11.4	10.8	**40.1**	17.0%	30.8%	22.4%	**22.1%**
North Macedonia	0.1	†	0.1	0.2	0.1	†	0.1	**0.2**	-11.3%	7.8%	-5.8%	**-7.5%**
Norway	9.9	0.1	0.3	10.3	11.8	0.2	0.3	**12.2**	19.1%	40.7%	–	**18.9%**
Poland	15.8	2.0	7.5	25.3	16.2	3.9	7.6	**27.8**	2.8%	102.2%	1.3%	**10.1%**
Portugal	12.3	1.7	4.0	18.0	13.2	2.2	3.7	**19.2**	7.8%	30.9%	-6.4%	**6.8%**
Romania	6.9	1.7	0.5	9.2	6.6	1.7	0.7	**9.0**	-5.1%	-1.6%	30.0%	**-2.3%**
Slovakia	†	0.7	1.7	2.3	†	0.7	2.0	**2.7**	♦	1.6%	22.6%	**16.6%**
Slovenia	†	0.4	0.3	0.7	†	0.3	0.3	**0.6**	-11.2%	-17.7%	7.9%	**-6.7%**
Spain	56.4	20.7	6.1	83.2	62.4	26.8	6.6	**95.8**	10.8%	30.1%	8.1%	**15.4%**
Sweden	27.5	1.0	11.2	39.7	27.3	1.4	13.3	**42.1**	-0.5%	40.4%	19.6%	**6.2%**
Switzerland	0.1	2.6	2.0	4.7	0.1	3.0	1.9	**5.1**	–	16.0%	-1.8%	**8.1%**
Turkey	24.8	11.0	15.8	51.5	31.1	12.8	18.7	**62.7**	25.8%	17.5%	19.1%	**22.0%**
Ukraine	3.3	5.4	0.8	9.4	3.9	6.3	0.8	**11.0**	19.9%	18.1%	3.3%	**17.6%**
United Kingdom	75.4	13.2	39.3	127.8	64.5	12.4	40.0	**116.9**	-14.2%	-5.6%	2.0%	**-8.4%**
Other Europe	1.8	0.4	0.3	2.4	2.0	0.4	0.3	**2.8**	12.5%	16.2%	26.9%	**14.6%**
Total Europe	512.7	175.7	234.4	922.7	503.0	195.6	247.9	**946.5**	-1.6%	11.6%	6.1%	**2.9%**
Azerbaijan	0.1	†	0.1	0.2	0.1	0.1	0.1	**0.2**	-4.6%	17.8%	-3.4%	**0.2%**
Belarus	0.2	0.2	0.3	0.6	0.2	0.3	0.3	**0.7**	–	68.1%	–	**18.6%**
Kazakhstan	1.0	1.2	†	2.3	1.7	1.3	†	**3.0**	63.1%	4.7%	-29.8%	**31.0%**
Russian Federation	1.1	1.9	0.5	3.5	2.6	2.3	0.5	**5.4**	127.8%	24.5%	1.3%	**54.6%**
Turkmenistan	–	†	–	†	–	†	–	**†**	–	–	–	**–**
Uzbekistan	–	†	–	†	†	†	–	**†**	–	624.6%	–	**628.2%**
Other CIS	0.1	0.1	†	0.1	0.1	0.1	†	**0.2**	35.4%	54.2%	-3.8%	**36.6%**
Total CIS	2.5	3.4	0.9	6.8	4.6	4.1	0.9	**9.6**	84.7%	21.1%	♦	**41.6%**
Iran	1.1	0.6	†	1.8	1.1	0.7	†	**1.8**	0.7%	6.1%	–	**2.6%**
Iraq	–	0.4	–	0.4	–	0.4	–	**0.4**	–	–	–	**–**
Israel	–	4.2	0.2	4.4	–	5.4	0.2	**5.7**	–	30.7%	22.3%	**30.3%**
Kuwait	†	0.1	–	0.1	†	0.1	–	**0.1**	–	–	–	**–**
Oman	0.1	0.2	–	0.3	0.1	0.3	–	**0.4**	–	23.3%	–	**15.6%**
Qatar	–	†	0.1	0.1	–	†	0.1	**0.1**	–	–	–	**–**
Saudi Arabia	–	0.2	–	0.2	–	0.8	–	**0.8**	–	301.7%	–	**301.7%**
United Arab Emirates	–	4.6	†	4.6	–	5.1	†	**5.2**	–	13.0%	–	**13.0%**
Other Middle East	1.4	2.4	†	3.9	1.7	2.4	†	**4.1**	19.9%	0.1%	–	**7.2%**
Total Middle East	2.6	12.7	0.4	15.7	2.9	15.2	0.4	**18.5**	10.8%	20.4%	12.2%	**18.6%**
Algeria	†	0.7	–	0.7	†	0.7	–	**0.7**	36.7%	-2.8%	–	**-2.4%**
Egypt	6.8	2.8	–	9.7	7.6	2.8	–	**10.5**	11.7%	–	–	**8.3%**
Morocco	4.6	1.5	–	6.1	5.1	1.8	–	**6.9**	11.5%	20.1%	–	**13.6%**
South Africa	7.0	8.3	0.4	15.7	8.2	7.9	0.4	**16.5**	17.5%	-4.5%	–	**5.4%**
Eastern Africa	2.0	1.2	7.1	10.3	2.6	1.4	7.1	**11.1**	33.5%	16.1%	-0.3%	**8.1%**
Middle Africa	†	0.1	0.1	0.1	†	0.1	0.1	**0.1**	♦	0.2%	♦	**0.1%**
Western Africa	0.4	0.8	0.2	1.5	0.4	1.2	0.2	**1.9**	-0.1%	44.4%	0.2%	**24.7%**
Other Northern Africa	0.5	0.3	–	0.8	0.4	0.3	–	**0.7**	-7.7%	0.6%	–	**-4.4%**
Other Southern Africa	–	0.4	0.2	0.5	–	0.4	0.2	**0.6**	–	7.8%	–	**5.1%**
Total Africa	21.3	16.1	8.1	45.4	24.4	16.5	8.0	**49.0**	14.9%	3.1%	-0.2%	**8.1%**
Australia	22.6	23.8	3.4	49.9	26.8	31.2	3.3	**61.3**	18.9%	31.2%	-1.7%	**23.3%**
Bangladesh	†	0.4	†	0.4	†	0.5	†	**0.5**	–	15.9%	–	**15.5%**
China	466.5	261.1	135.6	863.2	655.6	327.0	169.9	**1152.5**	40.9%	25.6%	25.6%	**33.9%**
China Hong Kong SAR	†	†	0.1	0.1	†	†	0.1	**0.1**	2.8%	2.8%	1.9%	**2.0%**
India	60.4	58.7	32.9	152.0	68.1	68.3	35.5	**171.9**	13.0%	16.7%	8.0%	**13.3%**
Indonesia	0.5	0.2	27.9	28.6	0.4	0.2	30.9	**31.5**	-7.7%	13.0%	10.8%	**10.5%**
Japan	7.8	75.1	34.8	117.8	8.2	86.3	35.8	**130.3**	5.8%	15.1%	3.0%	**10.9%**
Malaysia	–	1.2	1.6	2.8	–	1.5	1.6	**3.1**	–	28.6%	0.6%	**12.3%**
New Zealand	2.3	0.2	9.0	11.5	2.6	0.2	9.0	**11.9**	14.9%	28.2%	0.2%	**3.6%**
Pakistan	2.7	1.2	0.6	4.6	3.4	1.5	0.7	**5.7**	26.0%	26.3%	11.0%	**24.0%**
Philippines	1.0	1.4	12.0	14.4	1.2	1.5	10.8	**13.5**	21.6%	6.7%	-9.9%	**-6.1%**
Singapore	–	0.3	0.7	1.0	–	0.4	0.8	**1.2**	–	34.8%	11.2%	**18.3%**
South Korea	3.1	19.3	8.6	31.1	3.2	21.8	15.2	**40.2**	0.8%	13.4%	77.2%	**29.8%**
Sri Lanka	0.5	0.7	0.1	1.3	0.7	0.8	0.1	**1.6**	41.1%	17.1%	9.2%	**25.6%**
Taiwan	2.3	6.1	2.0	10.4	2.2	7.9	2.0	**12.1**	-2.6%	30.7%	0.7%	**17.6%**
Thailand	3.7	5.2	11.7	20.5	3.7	5.2	13.0	**21.9**	–	1.9%	11.3%	**6.9%**
Vietnam	1.1	10.9	0.1	12.1	2.4	25.8	0.2	**28.3**	123.3%	137.9%	25.6%	**135.5%**
Other Asia Pacific	0.5	1.1	0.6	2.2	0.5	1.5	0.6	**2.6**	-1.2%	34.9%	6.1%	**18.8%**
Total Asia Pacific	575.1	466.7	281.9	1323.7	779.2	581.5	329.4	**1690.1**	35.9%	24.9%	17.2%	**28.0%**
Total World	**1596.4**	**846.2**	**703.9**	**3146.6**	**1861.9**	**1032.5**	**762.8**	**3657.2**	**17.0%**	**22.3%**	**8.7%**	**16.5%**
of which: OECD	935.4	442.5	388.2	1766.1	976.7	523.3	410.1	**1910.1**	4.7%	18.6%	5.9%	**8.4%**
Non-OECD	661.1	403.8	315.7	1380.5	885.2	509.2	352.7	**1747.2**	34.3%	26.5%	12.0%	**26.9%**
European Union	397.3	143.3	170.0	710.6	389.5	160.6	180.1	**730.2**	-1.7%	12.4%	6.2%	**3.0%**

*Based on gross generation and not accounting for cross-border electricity supply.
‡Includes electricity generated from: geothermal, biomass and other sources of renewable energy (not already itemized).
†Less than 0.05.
♦Less than 0.05%.
A more extensive time series of renewables by source is available at *bp.com/statisticalreview*.
Note: Growth rates are adjusted for leap years.

Renewable energy: Solar capacity

Installed photovoltaic (PV) power* Gigawatts	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	**2021**	Growth rate per annum 2021	Growth rate per annum 2011-21	Share 2021
Canada	0.6	0.8	1.2	1.8	2.5	2.7	2.9	3.1	3.3	3.3	**3.6**	8.9%	19.2%	0.4%
Mexico	†	0.1	0.1	0.2	0.3	0.6	1.1	2.5	4.4	5.1	**7.0**	36.8%	66.7%	0.8%
US	5.2	8.1	11.8	16.0	21.7	33.0	41.4	49.8	59.1	73.8	**93.7**	27.3%	33.6%	11.1%
Total North America	5.8	9.0	13.1	18.0	24.5	36.3	45.4	55.4	66.8	82.3	**104.4**	27.2%	33.4%	12.4%
Argentina	†	†	†	†	†	†	†	0.2	0.4	0.8	**1.1**	40.6%	96.4%	0.1%
Brazil	†	†	†	†	†	0.1	1.2	2.4	4.6	7.9	**13.1**	66.1%	115.3%	1.5%
Chile	–	†	†	0.2	0.6	1.1	1.8	2.1	2.7	3.2	**4.4**	36.4%	na	0.5%
Honduras	†	†	†	†	0.4	0.4	0.5	0.5	0.5	0.5	**0.5**	0.3%	60.7%	0.1%
Other S. & Cent. America	0.2	0.3	0.4	0.6	0.9	1.1	1.8	2.2	2.8	3.2	**3.8**	20.3%	36.0%	0.5%
Total S. & Cent. America	0.2	0.4	0.5	0.8	1.9	2.8	5.3	7.5	11.0	15.5	**22.8**	47.2%	61.6%	2.7%
Austria	0.2	0.3	0.6	0.8	0.9	1.1	1.3	1.5	1.7	2.0	**2.7**	32.1%	31.5%	0.3%
Belgium	2.0	2.6	2.9	3.0	3.1	3.3	3.6	4.0	4.6	5.6	**6.6**	18.4%	12.8%	0.8%
Bulgaria	0.2	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.1	**1.2**	8.4%	22.7%	0.1%
Czech Republic	1.9	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	**2.1**	0.1%	1.0%	0.3%
Denmark	†	0.4	0.6	0.6	0.8	0.9	0.9	1.0	1.1	1.3	**1.5**	18.4%	56.9%	0.2%
France	3.0	4.4	5.3	6.0	7.1	7.7	8.6	9.7	10.8	12.0	**14.7**	22.7%	17.2%	1.7%
Germany	25.9	34.1	36.7	37.9	39.2	40.7	42.3	45.2	48.9	53.7	**58.5**	9.1%	8.5%	6.9%
Greece	0.6	1.5	2.6	2.6	2.6	2.6	2.6	2.7	2.8	3.3	**3.5**	7.7%	19.2%	0.4%
Hungary	†	†	†	0.1	0.2	0.2	0.3	0.7	1.4	2.1	**2.1**	0.3%	87.3%	0.3%
Italy	13.1	16.8	18.2	18.6	18.9	19.3	19.7	20.1	20.9	21.7	**22.7**	5.1%	5.6%	2.7%
Netherlands	0.1	0.3	0.7	1.0	1.5	2.1	2.9	4.6	7.2	10.9	**14.2**	30.5%	57.8%	1.7%
Poland	†	†	†	†	0.1	0.2	0.3	0.6	1.5	4.0	**6.3**	58.6%	137.2%	0.7%
Portugal	0.2	0.2	0.3	0.4	0.4	0.5	0.6	0.7	0.9	1.1	**1.8**	64.2%	26.5%	0.2%
Romania	†	†	0.8	1.3	1.3	1.4	1.4	1.4	1.4	1.4	**1.4**	1.4%	106.3%	0.2%
Slovakia	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.5	**0.5**	0.3%	0.8%	0.1%
Spain	4.3	4.6	4.7	4.7	4.7	4.7	4.7	4.8	8.8	10.3	**13.6**	33.1%	12.3%	1.6%
Sweden	†	†	†	0.1	0.1	0.2	0.2	0.4	0.7	1.1	**1.6**	42.9%	62.9%	0.2%
Switzerland	0.2	0.4	0.8	1.1	1.4	1.7	1.9	2.2	2.5	3.0	**3.4**	16.3%	31.5%	0.4%
Turkey	†	†	†	†	0.2	0.8	3.4	5.1	6.0	6.7	**7.8**	17.5%	102.6%	0.9%
Ukraine	0.2	0.4	0.7	0.8	0.8	1.0	1.2	2.0	5.9	7.3	**8.1**	10.3%	45.6%	1.0%
United Kingdom	1.0	1.8	2.9	5.5	9.6	11.9	12.8	13.1	13.3	13.5	**13.7**	2.0%	29.9%	1.6%
Other Europe	0.1	0.3	0.5	0.6	0.7	0.8	1.0	1.1	1.6	2.3	**3.0**	28.7%	35.9%	0.4%
Total Europe	53.6	71.7	81.9	88.8	97.5	104.6	113.3	124.2	146.0	167.0	**191.1**	14.7%	13.6%	22.7%
Russian Federation	†	†	†	†	0.1	0.1	0.2	0.5	1.3	1.4	**1.7**	16.7%	206.1%	0.2%
Other CIS	†	†	†	0.1	0.2	0.2	0.3	0.7	1.3	1.9	**3.3**	69.7%	109.5%	0.4%
Total CIS	†	†	†	0.1	0.2	0.3	0.5	1.2	2.6	3.3	**4.9**	47.1%	118.1%	0.6%
Israel	0.2	0.3	0.4	0.6	0.8	0.9	1.0	1.3	1.8	2.2	**2.3**	4.0%	28.4%	0.3%
Jordan	†	†	†	†	†	0.3	0.4	0.7	1.2	1.4	**1.5**	5.3%	185.0%	0.2%
United Arab Emirates	†	†	†	†	†	†	0.3	0.5	1.8	2.2	**2.6**	18.4%	70.2%	0.3%
Other Middle East	†	†	0.1	0.1	0.2	0.3	0.5	0.8	0.9	1.1	**1.5**	33.8%	73.8%	0.2%
Total Middle East	0.2	0.3	0.5	0.7	1.0	1.5	2.1	3.3	5.7	7.0	**8.0**	13.7%	44.0%	0.9%
Algeria	–	–	–	†	†	0.2	0.4	0.4	0.4	0.4	**0.4**	0.3%	na	0.1%
Egypt	†	†	†	†	†	†	0.2	0.7	1.6	1.7	**1.7**	0.3%	60.1%	0.2%
Morocco	†	†	†	†	†	†	†	0.2	0.2	0.2	**0.2**	21.1%	32.4%	0.0%
South Africa	†	†	0.3	1.1	1.3	2.0	3.1	4.4	4.4	5.5	**5.7**	4.5%	99.7%	0.7%
Other Africa	0.2	0.3	0.4	0.5	0.6	0.7	1.0	1.4	1.8	1.9	**2.3**	17.1%	25.6%	0.3%
Total Africa	0.3	0.3	0.7	1.6	1.9	3.0	4.7	7.2	8.4	9.7	**10.3**	6.5%	44.1%	1.2%
Australia	2.5	3.8	4.6	5.3	5.9	6.7	7.4	8.6	13.0	17.3	**19.1**	10.3%	22.7%	2.3%
China	3.1	6.7	17.7	28.4	43.5	77.8	130.8	175.0	204.6	253.4	**306.4**	21.2%	58.3%	36.3%
India	0.6	1.0	1.4	3.4	5.4	9.7	17.9	27.1	34.9	39.0	**49.3**	26.7%	56.4%	5.9%
Japan	4.9	6.6	13.6	23.3	34.2	42.0	49.5	56.2	63.2	69.8	**74.2**	6.6%	31.2%	8.8%
Malaysia	†	†	0.1	0.2	0.3	0.3	0.4	0.5	0.9	1.5	**1.8**	20.8%	124.7%	0.2%
Pakistan	†	†	0.1	0.2	0.3	0.6	0.7	0.7	0.8	0.9	**1.1**	26.3%	50.1%	0.1%
Philippines	†	†	†	†	0.2	0.8	0.9	0.9	1.0	1.1	**1.4**	29.8%	91.9%	0.2%
South Korea	0.7	1.0	1.6	2.5	3.6	4.5	5.8	8.1	12.0	14.6	**18.2**	24.9%	37.9%	2.2%
Taiwan	0.1	0.2	0.4	0.6	0.9	1.2	1.8	2.7	4.1	5.8	**7.7**	32.7%	50.4%	0.9%
Thailand	0.1	0.4	0.8	1.3	1.4	2.4	2.7	3.0	3.0	3.0	**3.0**	2.3%	44.1%	0.4%
Vietnam	†	†	†	†	†	†	†	0.1	5.0	16.7	**16.7**	0.3%	127.3%	2.0%
Other Asia Pacific	0.1	0.2	0.3	0.3	0.5	0.7	1.0	1.2	1.8	2.3	**2.8**	20.8%	37.3%	0.3%
Total Asia Pacific	12.1	20.0	40.6	65.6	96.2	146.8	218.8	284.2	344.1	425.3	**501.6**	18.3%	45.1%	59.5%
Total World	**72.2**	**101.7**	**137.2**	**175.6**	**223.2**	**295.2**	**390.2**	**483.0**	**584.7**	**710.3**	**843.1**	**19.0%**	**27.9%**	**100.0%**

Source: IRENA (2022), Renewable Energy Statistics 2022, The International Renewable Energy Agency, Abu Dhabi.

*End of year.
†Less than 0.05.
Note: Growth rates are adjusted for leap years.

Renewable energy: Wind capacity

Installed wind turbine capacity* Gigawatts	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Growth rate per annum 2021	Growth rate per annum 2011-21	Share 2021
Canada	5.3	6.2	7.8	9.7	11.2	12.0	12.3	12.8	13.4	13.6	**14.3**	5.3%	10.5%	1.7%
Mexico	0.6	1.8	2.1	2.6	3.3	4.1	4.2	4.9	6.1	6.5	**7.7**	18.6%	29.0%	0.9%
US	45.7	59.1	60.0	64.2	72.6	81.3	87.6	94.5	104.1	118.7	**132.7**	12.1%	11.3%	16.1%
Total North America	51.5	67.1	69.9	76.5	87.1	97.3	104.0	112.2	123.5	138.9	**154.7**	11.7%	11.6%	18.8%
Argentina	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.8	1.6	2.6	**3.3**	25.8%	49.4%	0.4%
Brazil	1.4	1.9	2.2	4.9	7.6	10.1	12.3	14.8	15.4	17.2	**21.2**	23.4%	31.0%	2.6%
Chile	0.2	0.2	0.3	0.7	0.9	1.0	1.3	1.5	1.6	2.1	**3.1**	46.4%	32.8%	0.4%
Costa Rica	0.1	0.1	0.1	0.2	0.3	0.4	0.4	0.4	0.4	0.4	**0.4**	0.3%	11.9%	0.0%
Uruguay	†	0.1	0.1	0.5	0.9	1.2	1.5	1.5	1.5	1.5	**1.5**	0.3%	42.6%	0.2%
Other S. & Cent. America	0.4	0.6	0.8	1.0	1.4	1.6	1.6	1.8	2.0	2.1	**2.3**	6.6%	20.5%	0.3%
Total S. & Cent. America	2.2	3.1	3.7	7.5	11.2	14.5	17.3	20.8	22.6	26.0	**31.8**	22.5%	30.6%	3.8%
Austria	1.1	1.3	1.7	2.1	2.5	2.7	2.9	3.1	3.2	3.2	**3.5**	9.5%	12.3%	0.4%
Belgium	1.1	1.4	1.8	1.9	2.2	2.4	2.8	3.3	3.9	4.7	**4.8**	2.4%	16.2%	0.6%
Bulgaria	0.5	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	**0.7**	0.6%	2.7%	0.1%
Denmark	4.0	4.2	4.8	4.9	5.1	5.2	5.5	6.1	6.1	6.3	**7.0**	12.4%	5.9%	0.9%
Finland	0.2	0.3	0.4	0.6	1.0	1.6	2.0	2.0	2.3	2.6	**3.3**	26.3%	32.3%	0.4%
France	6.8	7.6	8.2	9.2	10.3	11.6	13.5	14.9	16.5	17.5	**18.7**	7.1%	10.7%	2.3%
Germany	28.7	31.0	33.5	38.6	44.6	49.4	55.6	58.7	60.7	62.2	**63.8**	2.8%	8.3%	7.7%
Greece	1.6	1.8	1.8	2.0	2.1	2.4	2.6	2.9	3.6	4.1	**4.5**	8.5%	10.5%	0.5%
Ireland	1.6	1.7	1.9	2.3	2.5	2.8	3.3	3.7	4.1	4.3	**4.3**	0.9%	10.6%	0.5%
Italy	6.9	8.1	8.5	8.7	9.1	9.4	9.7	10.2	10.7	10.9	**11.3**	4.0%	5.0%	1.4%
Netherlands	2.3	2.4	2.7	2.9	3.4	4.3	4.2	4.4	4.5	6.6	**7.8**	18.2%	12.9%	0.9%
Norway	0.5	0.7	0.8	0.9	0.9	0.9	1.2	1.7	2.9	4.0	**4.7**	15.7%	24.7%	0.6%
Poland	1.8	2.6	3.4	3.8	4.9	5.7	5.8	5.8	5.8	6.3	**7.0**	10.8%	14.5%	0.8%
Portugal	4.3	4.4	4.6	4.9	4.9	5.1	5.1	5.2	5.2	5.1	**5.2**	2.7%	2.1%	0.6%
Romania	1.0	1.8	2.8	3.2	3.1	3.0	3.0	3.0	3.0	3.0	**3.0**	0.3%	11.8%	0.4%
Spain	21.5	22.8	23.0	22.9	22.9	23.0	23.1	23.4	25.6	26.8	**27.5**	2.8%	2.5%	3.3%
Sweden	2.8	3.6	4.2	5.1	5.8	6.4	6.6	7.3	8.7	10.0	**12.1**	21.4%	15.9%	1.5%
Turkey	1.7	2.3	2.8	3.6	4.5	5.8	6.5	7.0	7.6	8.8	**10.6**	20.4%	19.9%	1.3%
Ukraine	0.1	0.2	0.4	0.5	0.5	0.5	0.6	0.6	1.3	1.4	**1.8**	26.0%	28.3%	0.2%
United Kingdom	6.6	9.0	11.3	13.1	14.3	16.1	19.6	21.8	24.1	24.5	**27.1**	11.1%	15.2%	3.3%
Other Europe	1.3	1.6	1.7	1.9	2.2	2.4	2.5	2.8	3.0	3.2	**3.6**	12.6%	11.8%	0.5%
Total Europe	96.4	109.4	120.9	133.8	147.5	161.4	176.9	188.6	203.5	216.3	**232.1**	7.7%	9.2%	28.2%
Russian Federation	†	†	†	†	†	†	†	0.1	0.1	0.9	**2.0**	107.4%	69.5%	0.2%
Other CIS	†	†	†	0.1	0.1	0.2	0.2	0.3	0.5	0.7	**1.4**	103.6%	79.0%	0.2%
Total CIS	†	†	†	0.1	0.1	0.2	0.2	0.3	0.6	1.6	**3.3**	105.8%	72.7%	0.4%
Iran	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.3	**0.3**	1.0%	12.2%	0.0%
Jordan	†	†	†	†	0.1	0.2	0.2	0.3	0.4	0.5	**0.6**	20.3%	84.0%	0.1%
Other Middle East	†	†	†	†	†	†	†	†	0.1	0.1	**0.1**	0.3%	29.6%	0.0%
Total Middle East	0.1	0.1	0.1	0.2	0.3	0.4	0.5	0.6	0.8	0.9	**1.0**	11.7%	25.4%	0.1%
Egypt	0.6	0.6	0.6	0.6	0.8	0.8	0.8	1.1	1.1	1.4	**1.6**	19.2%	11.4%	0.2%
Morocco	0.3	0.3	0.5	0.8	0.8	0.9	1.0	1.2	1.2	1.4	**1.4**	2.4%	18.9%	0.2%
South Africa	†	†	0.3	0.6	1.1	1.5	2.1	2.1	2.1	2.5	**3.0**	17.8%	76.3%	0.4%
Tunisia	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	**0.2**	0.3%	16.4%	0.0%
Other Africa	0.1	0.1	0.2	0.2	0.4	0.5	0.5	0.8	0.8	0.9	**1.1**	13.1%	24.2%	0.1%
Total Africa	1.0	1.1	1.7	2.4	3.3	3.8	4.6	5.5	5.5	6.5	**7.3**	13.4%	22.1%	0.9%
Australia	2.1	2.6	3.2	3.8	4.2	4.3	4.8	5.4	6.3	8.6	**9.0**	4.3%	15.5%	1.1%
China	46.4	61.6	76.7	96.8	131.0	148.5	164.4	184.7	209.6	282.1	**329.0**	16.9%	21.6%	39.9%
India	16.2	17.3	18.4	22.5	25.1	28.7	32.8	35.3	37.5	38.6	**40.1**	4.2%	9.5%	4.9%
Japan	2.4	2.6	2.6	2.8	2.8	3.2	3.5	3.5	4.0	4.4	**4.5**	2.6%	6.3%	0.5%
New Zealand	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.8	**0.9**	17.3%	3.9%	0.1%
Pakistan	†	0.1	0.1	0.2	0.3	0.6	0.8	1.2	1.2	1.2	**1.3**	8.3%	71.7%	0.2%
Philippines	†	†	†	0.3	0.4	0.4	0.4	0.4	0.4	0.4	**0.4**	0.3%	29.7%	0.1%
South Korea	0.4	0.5	0.6	0.6	0.8	1.1	1.2	1.4	1.5	1.6	**1.7**	4.7%	14.9%	0.2%
Taiwan	0.5	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.8	0.9	**1.0**	10.6%	7.1%	0.1%
Thailand	†	0.1	0.2	0.2	0.2	0.5	0.6	1.1	1.5	1.5	**1.5**	0.3%	70.4%	0.2%
Other Asia Pacific	0.1	0.2	0.2	0.3	0.4	0.4	0.5	0.7	0.9	1.1	**4.7**	344.1%	42.9%	0.6%
Total Asia Pacific	68.8	86.0	103.4	128.8	166.7	189.2	210.5	235.2	264.4	341.3	**394.2**	15.8%	19.1%	47.8%
Total World	**220.1**	**266.9**	**299.8**	**349.3**	**416.2**	**466.9**	**514.2**	**563.5**	**621.3**	**731.8**	**824.9**	**13.0%**	**14.1%**	**100.0%**

Source: IRENA (2022), Renewable Energy Statistics 2022, The International Renewable Energy Agency, Abu Dhabi.

*End of year.
†Less than 0.05.
Notes: Capacity figures in this table include both onshore and offshore wind and are on an AC basis.
Growth rates are adjusted for leap years.

Renewables: Biofuels production*

Thousand barrels of oil equivalent per day	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	**2021**	Growth rate per annum 2021	Growth rate per annum 2011-21	Share 2021
Canada	18	17	18	22	21	22	22	22	24	22	**22**	-0.9%	2.0%	1.4%
Mexico	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
US	556	531	555	588	605	642	664	684	665	602	**643**	7.1%	1.5%	40.7%
Total North America	574	548	574	609	625	664	686	707	689	624	**665**	6.8%	1.5%	42.1%
Argentina	42	43	38	49	38	53	58	51	46	27	**38**	42.8%	-0.8%	2.2%
Brazil	251	257	299	315	338	317	320	384	411	394	**376**	-4.3%	4.1%	21.5%
Colombia	11	12	12	13	13	13	12	14	13	12	**13**	7.4%	1.9%	0.7%
Other S. & Cent. America	5	5	7	7	8	10	10	11	12	12	**12**	2.5%	9.0%	0.7%
Total S. & Cent. America	309	316	356	384	396	392	399	460	482	445	**439**	-1.0%	3.6%	25.2%
Austria	7	7	7	6	7	8	7	7	7	7	**8**	5.9%	0.8%	0.5%
Belgium	8	8	8	11	7	7	8	8	8	9	**9**	0.3%	1.0%	0.6%
Finland	4	5	6	7	8	2	6	5	6	6	**5**	-4.3%	3.4%	0.3%
France	42	49	46	47	49	45	44	50	46	43	**48**	11.2%	1.3%	3.0%
Germany	58	54	58	64	59	60	61	63	66	63	**54**	-13.6%	-0.6%	3.4%
Italy	11	6	9	10	10	10	12	13	15	21	**21**	-1.6%	6.4%	1.3%
Netherlands	12	24	28	33	36	28	37	36	38	38	**38**	1.3%	11.8%	2.4%
Poland	8	12	13	14	15	17	17	17	18	18	**19**	6.9%	9.7%	1.2%
Portugal	6	5	5	6	6	6	6	6	7	6	**5**	-2.6%	-1.3%	0.3%
Spain	16	11	14	19	21	22	35	40	39	33	**32**	-3.2%	7.4%	2.0%
Sweden	4	4	4	4	4	4	3	7	8	8	**11**	46.5%	12.3%	0.7%
United Kingdom	3	6	9	7	6	10	14	13	11	10	**10**	-2.0%	12.1%	0.6%
Other Europe	22	26	28	28	31	33	35	39	40	39	**41**	4.1%	6.5%	2.6%
Total Europe	201	217	234	256	260	252	286	304	310	301	**302**	0.6%	4.2%	19.1%
Total CIS	0	1	0	0	0	0	0	0	0	0	**†**	0.3%	-6.2%	♦
Total Middle East	0	0	0	0	0	0	0	0	0	0	**†**	0.3%	2.3%	♦
Total Africa	2	2	2	2	3	3	2	2	2	2	**2**	0.7%	1.4%	0.1%
Australia	4	4	5	5	4	2	2	2	3	2	**2**	-7.5%	-6.2%	0.1%
China	36	38	42	47	40	39	47	45	55	58	**64**	11.4%	6.0%	4.0%
India	5	5	5	5	10	12	11	19	21	23	**37**	59.8%	22.3%	2.3%
Indonesia	27	33	41	59	24	54	50	91	124	126	**140**	10.9%	18.0%	8.8%
South Korea	6	7	7	7	8	8	8	13	13	13	**15**	12.9%	8.7%	0.9%
Thailand	17	24	30	34	36	33	36	40	44	44	**40**	-9.3%	8.9%	2.5%
Other Asia Pacific	16	21	28	35	36	34	32	37	53	43	**40**	-5.3%	9.7%	2.6%
Total Asia Pacific	111	132	158	191	159	181	187	247	312	310	**338**	9.5%	11.8%	21.4%
Total World	**1197**	**1216**	**1325**	**1443**	**1443**	**1492**	**1560**	**1720**	**1796**	**1682**	**1747**	**4.1%**	**3.8%**	**100.0%**
of which: OECD	793	785	828	886	906	935	988	1034	1020	944	**986**	4.8%	2.2%	56.5%
Non-OECD	404	430	497	557	537	557	572	686	776	738	**760**	3.3%	6.5%	43.5%
European Union	195	210	223	247	252	239	267	286	293	286	**287**	0.6%	3.9%	16.4%

Biofuels production by fuel type

Thousand barrels of oil equivalent per day	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	**2021**	Growth rate per annum 2021	Growth rate per annum 2011-21	Share 2021
Biogasoline														
Canada & Mexico	16	16	16	17	16	16	16	17	18	16	**17**	4.9%	0.5%	1.7%
US	502	475	479	516	534	554	575	580	569	501	**542**	8.3%	0.8%	53.5%
Brazil	212	217	256	264	280	261	256	305	324	299	**276**	-7.5%	2.7%	27.3%
Other S. & Cent. America	9	10	14	17	18	21	22	24	24	20	**22**	10.8%	9.0%	2.2%
Europe	40	46	52	51	56	52	56	57	55	51	**54**	6.4%	3.1%	5.4%
CIS	–	–	†	†	†	†	†	†	†	†	**†**	0.3%	–	♦
Middle East	0	0	0	0	0	0	0	0	0	0	**0**	0.3%	2.3%	♦
Africa	2	2	2	2	3	3	2	2	2	2	**2**	0.7%	1.4%	0.2%
Asia Pacific	39	40	47	53	57	52	58	66	75	79	**99**	24.4%	9.8%	9.7%
Total World	**820**	**807**	**866**	**921**	**965**	**960**	**986**	**1052**	**1067**	**970**	**1012**	**4.6%**	**2.1%**	**100.0%**
of which: OECD	564	543	553	590	613	628	651	660	647	573	**617**	8.0%	0.9%	60.9%
Non-OECD	256	264	313	331	352	332	335	391	420	397	**395**	-0.2%	4.4%	39.1%
European Union	40	44	46	45	52	47	48	51	50	48	**51**	5.9%	2.5%	5.0%
Biodiesel‡														
Canada & Mexico	2	1	2	5	4	6	6	6	5	6	**5**	-17.3%	10.6%	0.6%
US	54	55	76	71	70	87	89	104	96	101	**101**	0.9%	6.5%	13.8%
Brazil	39	40	43	50	58	56	63	79	87	95	**100**	5.6%	9.7%	13.5%
Other S. & Cent. America	48	49	43	53	40	54	57	52	48	31	**42**	33.9%	-1.5%	5.7%
Europe	160	171	183	205	203	200	230	247	255	250	**248**	-0.6%	4.4%	33.7%
CIS	0	1	0	0	0	0	0	0	0	0	**0**	0.3%	-6.3%	♦
Middle East	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Africa	–	†	†	†	0	0	–	–	–	–	**–**	–	–	–
Asia Pacific	72	91	111	138	102	129	129	181	237	230	**239**	4.3%	12.7%	32.6%
Total World	**377**	**409**	**459**	**523**	**478**	**532**	**574**	**668**	**729**	**712**	**734**	**3.4%**	**6.9%**	**100.0%**
of which: OECD	229	242	274	296	294	307	337	374	373	371	**370**	-0.2%	4.9%	50.3%
Non-OECD	148	167	184	227	185	225	237	295	356	341	**365**	7.3%	9.5%	49.7%
European Union	156	166	177	201	199	192	219	235	243	238	**236**	-0.5%	4.3%	32.2%

Sources: Includes data from S&P Global; US Energy Information Administration (March 2022).

*Includes biogasoline (such as ethanol) and biodiesel. Volumes have been adjusted for energy content.
†Less than 0.5.
♦Less than 0.05%.
Notes: Growth rates are adjusted for leap years.
Annual changes and shares of total are calculated using thousand barrels per day oil equivalent figures.

Renewables: Biofuels consumption*

Thousand barrels of oil equivalent per day	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	**2021**	Growth rate per annum 2021	2011-21	Share 2021
Canada	27	35	35	36	34	32	38	39	40	36	**39**	6.9%	3.7%	2.1%
Mexico	2	2	2	3	3	3	4	4	4	4	**4**	-3.9%	9.5%	0.2%
US	518	518	573	581	608	658	661	652	670	608	**664**	9.5%	2.5%	36.1%
Total North America	547	555	609	620	645	693	703	695	715	649	**707**	9.2%	2.6%	38.5%
Argentina	14	17	19	22	24	26	30	28	29	16	**17**	8.6%	1.8%	0.9%
Brazil	235	222	261	288	341	310	326	378	420	390	**412**	5.9%	5.8%	22.4%
Colombia	12	12	12	13	13	13	14	15	14	12	**16**	27.2%	3.2%	0.9%
Other S. & Cent. America	12	14	15	15	16	17	18	18	18	16	**17**	10.8%	4.2%	1.0%
Total S. & Cent. America	272	265	307	338	395	365	387	440	480	434	**462**	6.8%	5.4%	25.1%
Austria	10	10	8	10	12	10	9	9	9	8	**8**	0.9%	-1.8%	0.4%
Belgium	7	6	6	8	5	8	9	9	9	12	**13**	10.7%	7.3%	0.7%
Finland	3	3	4	8	8	3	7	6	7	7	**7**	11.4%	7.8%	0.4%
France	44	48	49	52	53	53	54	53	55	50	**56**	13.7%	2.6%	3.1%
Germany	53	56	50	53	50	50	51	53	52	63	**56**	-11.4%	0.5%	3.0%
Italy	25	28	24	20	25	25	25	26	15	21	**22**	4.5%	-1.3%	1.2%
Netherlands	7	7	7	7	8	8	9	11	14	15	**13**	-15.5%	5.6%	0.7%
Poland	13	14	14	13	12	8	11	17	18	19	**20**	7.0%	4.8%	1.1%
Portugal	6	5	5	5	7	5	5	5	5	5	**6**	27.0%	0.3%	0.3%
Spain	32	39	17	18	18	21	24	31	31	26	**25**	-3.9%	-2.6%	1.3%
Sweden	10	12	12	16	19	25	28	27	27	25	**29**	18.5%	11.1%	1.6%
United Kingdom	20	17	19	22	17	18	17	24	31	29	**26**	-10.8%	2.6%	1.4%
Other Europe	27	31	38	36	37	42	49	51	60	62	**63**	2.4%	9.0%	3.4%
Total Europe	256	276	254	269	272	275	297	322	335	341	**345**	1.4%	3.0%	18.8%
Total CIS	1	1	†	†	†	1	2	2	3	3	**5**	49.6%	24.8%	0.3%
Total Middle East	†	†	†	†	†	†	1	1	1	1	**1**	6.6%	16.2%	0.1%
Total Africa	1	1	1	1	1	1	1	2	1	2	**2**	2.8%	7.7%	0.1%
Australia	5	5	5	5	4	3	3	3	2	2	**2**	3.2%	-8.8%	0.1%
China	35	42	57	60	42	46	42	55	49	38	**48**	26.0%	3.2%	2.6%
India	20	19	19	22	23	28	25	33	37	36	**43**	21.0%	7.9%	2.3%
Indonesia	7	11	17	28	15	46	39	56	96	125	**138**	11.2%	35.4%	7.5%
South Korea	6	7	10	9	8	8	8	13	13	13	**13**	2.6%	7.7%	0.7%
Thailand	14	18	24	28	30	31	34	37	42	42	**39**	-5.8%	11.1%	2.1%
Other Asia Pacific	11	13	16	19	23	25	26	27	32	28	**33**	15.4%	12.0%	1.8%
Total Asia Pacific	98	115	149	171	145	186	178	224	271	284	**316**	11.9%	12.5%	17.2%
Total World	**1174**	**1212**	**1320**	**1400**	**1459**	**1522**	**1568**	**1686**	**1805**	**1713**	**1837**	**7.6%**	**4.6%**	**100.0%**
of which: OECD	825	853	888	915	942	992	1025	1048	1075	1013	**1077**	6.6%	2.7%	58.6%
Non-OECD	348	359	432	486	517	530	543	638	731	700	**760**	8.9%	8.1%	41.4%
European Union	233	256	224	241	248	248	265	285	287	298	**305**	2.6%	2.7%	16.6%

Biofuels consumption by fuel type

Thousand barrels of oil equivalent per day	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	**2021**	Growth rate per annum 2021	2011-21	Share 2021
Biogasoline														
US	22	28	28	30	30	30	32	34	34	31	**32**	4.8%	3.7%	3.0%
Canada & Mexico	465	463	477	485	503	516	522	520	525	456	**503**	10.5%	0.8%	47.9%
Brazil	197	181	218	238	283	254	263	300	333	295	**311**	5.7%	4.7%	29.6%
Other S. & Cent. America	13	15	18	20	22	24	26	27	26	21	**26**	21.9%	6.8%	2.4%
Europe	55	56	52	52	53	52	54	56	61	59	**67**	14.2%	1.9%	6.3%
CIS	–	–	–	–	–	†	1	1	2	2	**3**	56.6%	–	0.3%
Middle East	†	†	†	†	†	†	†	†	†	†	**†**	3.0%	-0.8%	◆
Africa	1	1	1	1	1	1	1	2	1	2	**2**	2.8%	7.7%	0.2%
Asia Pacific	58	61	66	74	80	89	84	98	101	91	**107**	17.9%	6.4%	10.2%
Total World	**811**	**805**	**861**	**901**	**973**	**967**	**983**	**1038**	**1083**	**957**	**1050**	**10.1%**	**2.6%**	**100.0%**
of which: OECD	552	557	567	578	597	610	621	623	631	556	**613**	10.4%	1.0%	58.3%
Non-OECD	259	249	294	323	375	357	362	414	452	400	**438**	9.7%	5.4%	41.7%
European Union	49	48	43	43	43	42	44	46	50	50	**55**	11.5%	1.3%	5.3%
Biodiesel														
US	7	9	8	8	7	6	9	10	10	10	**11**	8.7%	5.3%	1.4%
Canada & Mexico	53	54	96	96	105	141	138	132	145	152	**161**	6.4%	11.8%	20.5%
Brazil	38	40	43	50	58	56	63	79	87	95	**101**	6.4%	10.3%	12.8%
Other S. & Cent. America	24	28	28	30	31	32	35	34	34	23	**24**	7.9%	0.2%	3.1%
Europe	201	221	201	217	219	223	243	266	273	282	**278**	-1.2%	3.3%	35.3%
CIS	1	1	†	†	†	1	1	1	1	1	**2**	39.2%	13.1%	0.2%
Middle East	–	–	–	–	–	†	†	1	1	1	**1**	7.6%	–	0.1%
Africa	–	–	–	–	–	–	–	–	–	–	**–**	–	–	–
Asia Pacific	40	54	82	98	66	97	94	126	170	192	**209**	9.0%	18.0%	26.6%
Total World	**362**	**407**	**460**	**499**	**486**	**555**	**584**	**648**	**722**	**756**	**787**	**4.3%**	**8.1%**	**100.0%**
of which: OECD	273	296	322	337	345	382	403	424	443	457	**465**	2.0%	5.5%	59.0%
Non-OECD	90	111	138	163	142	173	181	224	279	300	**322**	7.9%	13.7%	41.0%
European Union	185	208	181	199	205	206	221	239	237	248	**250**	0.8%	3.1%	31.7%

Sources: Includes data from S&P Global; US Energy Information Administration (March 2022).

*Includes biogasoline (such as ethanol) and biodiesel. Volumes have been adjusted for energy content.
†Less than 0.5.
◆Less than 0.05%.
Notes: Growth rates are adjusted for leap years.
Annual changes and shares of total are calculated using thousand barrels of oil equivalent per day figures.

Electricity generation*

Terawatt-hours	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Growth rate per annum 2021	Growth rate per annum 2011-21	Share 2021
Canada	638.3	636.5	655.7	647.6	659.3	663.7	664.5	655.8	650.8	649.1	**641.0**	-1.0%	◆	2.3%
Mexico	292.1	296.4	297.1	303.3	310.3	319.4	325.1	335.1	344.6	325.7	**336.0**	3.4%	1.4%	1.2%
US	4363.4	4310.6	4330.3	4363.3	4348.7	4347.9	4302.5	4461.6	4411.2	4284.8	**4406.4**	3.1%	0.1%	15.5%
Total North America	5293.8	5243.5	5283.1	5314.2	5318.4	5331.1	5292.2	5452.5	5406.5	5259.7	**5383.5**	2.6%	0.2%	18.9%
Argentina	129.5	136.0	139.4	138.6	145.4	147.2	145.6	146.8	139.5	144.6	**152.5**	5.7%	1.6%	0.5%
Brazil	531.8	552.5	570.8	590.5	581.2	578.9	589.3	601.4	626.3	621.3	**654.4**	5.6%	2.1%	2.3%
Chile	65.2	69.7	73.0	71.6	74.5	77.7	78.6	82.3	83.6	83.7	**87.8**	5.1%	3.0%	0.3%
Colombia	66.2	67.7	69.8	72.7	75.0	74.4	75.0	78.4	80.8	78.8	**82.8**	5.3%	2.3%	0.3%
Ecuador	20.5	22.8	23.3	24.3	26.0	27.3	28.0	29.7	32.9	31.2	**32.2**	3.4%	4.6%	0.1%
Peru	38.8	41.0	43.3	45.5	48.3	51.7	52.7	55.0	57.0	52.8	**57.4**	9.1%	4.0%	0.2%
Trinidad & Tobago	8.8	9.1	9.5	9.9	10.3	10.0	9.9	9.2	9.2	8.6	**9.0**	4.6%	0.2%	◆
Venezuela	122.9	127.9	132.6	130.9	125.3	114.7	110.3	95.4	80.1	74.5	**76.7**	3.2%	-4.6%	0.3%
Central America	44.4	46.1	47.5	48.9	51.7	53.3	53.7	56.4	57.8	55.2	**59.3**	7.7%	2.9%	0.2%
Other Caribbean	74.3	76.1	76.7	75.9	77.8	78.6	74.5	76.5	79.9	77.5	**81.0**	4.9%	0.9%	0.3%
Other South America	78.9	82.3	84.2	80.9	82.7	91.3	87.9	87.9	80.0	74.3	**71.8**	-3.0%	-0.9%	0.3%
Total S. & Cent. America	1181.2	1231.4	1270.3	1289.8	1298.2	1305.2	1305.7	1319.0	1327.3	1302.5	**1364.8**	5.1%	1.5%	4.8%
Austria	65.9	72.7	68.4	65.6	65.5	68.5	71.3	68.6	74.2	72.6	**73.8**	2.0%	1.2%	0.3%
Belgium	90.2	82.9	83.5	72.5	69.7	85.6	86.6	75.0	93.6	89.4	**100.2**	12.4%	1.1%	0.4%
Bulgaria	50.8	47.3	43.8	47.5	49.2	45.3	45.6	46.8	44.2	40.9	**47.7**	17.0%	-0.6%	0.2%
Croatia	11.4	10.8	14.1	13.6	11.4	12.8	12.0	13.6	12.8	13.4	**15.2**	14.1%	3.0%	0.1%
Cyprus	4.9	4.7	4.3	4.4	4.5	4.9	5.0	5.0	5.1	4.8	**5.1**	5.6%	0.4%	◆
Czech Republic	87.6	87.6	87.1	86.0	83.9	83.3	87.0	88.0	87.0	81.4	**84.9**	4.5%	-0.3%	0.3%
Denmark	35.2	30.7	34.7	32.2	28.9	30.5	31.0	30.4	29.5	28.7	**33.4**	16.5%	-0.5%	0.1%
Estonia	12.9	12.0	13.3	12.4	10.4	12.2	13.2	12.4	7.6	6.0	**6.8**	13.8%	-6.3%	◆
Finland	73.7	70.5	71.4	68.2	69.2	69.7	68.5	71.1	69.5	70.1	**72.6**	3.9%	-0.1%	0.3%
France	565.0	565.2	575.3	564.8	571.7	556.2	554.0	574.0	562.8	523.7	**547.2**	4.8%	-0.3%	1.9%
Germany	612.9	628.9	637.6	625.7	646.1	648.2	651.4	640.2	607.0	573.6	**584.5**	2.2%	-0.5%	2.1%
Greece	59.4	61.0	57.2	50.5	51.9	54.4	55.3	53.3	48.6	48.3	**55.8**	15.9%	-0.6%	0.2%
Hungary	36.0	34.6	30.3	29.4	30.4	31.9	32.9	32.1	34.3	34.9	**35.8**	2.8%	-0.1%	0.1%
Iceland	17.2	17.5	18.1	18.1	18.8	18.5	19.2	19.8	19.5	19.1	**19.6**	2.9%	1.3%	0.1%
Ireland	27.5	27.6	26.1	26.3	28.4	30.4	30.9	31.1	31.0	32.3	**31.5**	-2.2%	1.4%	0.1%
Italy	302.6	299.3	289.8	279.8	283.0	289.8	295.8	289.7	293.9	280.5	**287.2**	2.7%	-0.5%	1.0%
Latvia	6.1	6.2	6.2	5.1	5.5	6.4	7.5	6.7	6.4	5.7	**5.8**	2.0%	-0.4%	◆
Lithuania	4.8	5.0	4.8	4.4	4.9	4.3	4.2	3.5	4.0	5.5	**4.8**	-13.1%	-0.1%	◆
Luxembourg	3.7	3.8	2.9	3.0	2.8	2.2	2.2	2.2	1.9	2.2	**2.3**	3.5%	-4.7%	◆
Netherlands	113.0	102.5	100.9	103.4	110.1	115.2	117.3	114.1	121.4	123.6	**121.6**	-1.3%	0.7%	0.4%
North Macedonia	6.8	6.3	6.1	5.4	5.6	5.6	5.6	5.6	5.9	5.3	**5.5**	3.7%	-2.0%	◆
Norway	127.6	147.7	134.0	142.0	144.5	149.0	149.4	147.1	134.9	154.2	**157.1**	2.2%	2.1%	0.6%
Poland	163.5	162.1	164.6	159.1	164.9	166.6	170.5	170.0	164.0	157.1	**180.0**	14.9%	1.0%	0.6%
Portugal	52.5	46.6	51.7	52.8	52.4	60.3	59.4	59.6	53.2	53.1	**49.7**	-6.1%	-0.5%	0.2%
Romania	62.2	59.0	58.9	63.3	66.3	65.1	64.3	64.8	59.5	55.8	**59.3**	6.6%	-0.5%	0.2%
Slovakia	28.1	28.4	28.6	27.3	27.2	27.1	27.6	26.9	28.4	28.8	**29.7**	3.5%	0.6%	0.1%
Slovenia	16.1	15.7	16.1	17.4	15.1	16.5	16.3	16.3	16.1	17.2	**15.9**	-7.0%	-0.1%	0.1%
Spain	291.8	297.6	285.3	278.8	281.0	274.6	275.6	274.5	267.5	263.4	**272.1**	3.6%	-0.7%	1.0%
Sweden	151.2	166.3	153.2	153.7	162.1	156.1	164.3	163.4	168.4	163.8	**169.9**	4.0%	1.2%	0.6%
Switzerland	64.8	70.0	70.4	72.0	66.3	61.9	61.8	67.6	71.9	70.2	**64.9**	-7.3%	◆	0.2%
Turkey	229.4	239.5	240.2	252.0	261.8	274.4	297.3	304.8	303.9	306.7	**333.3**	9.0%	3.8%	1.2%
Ukraine	194.9	198.9	194.4	182.8	163.7	164.6	156.0	159.9	154.1	147.8	**155.5**	5.5%	-2.2%	0.5%
United Kingdom	368.0	363.9	358.3	338.1	338.9	339.2	338.2	332.7	323.8	312.0	**309.9**	-0.4%	-1.7%	1.1%
Other Europe	81.6	79.3	90.1	80.2	85.4	89.0	82.9	92.3	87.4	86.7	**93.6**	8.3%	1.4%	0.3%
Total Europe	4019.3	4052.2	4021.4	3937.5	3981.4	4020.4	4060.2	4063.1	3993.4	3879.0	**4032.5**	4.2%	◆	14.2%
Azerbaijan	20.3	23.0	23.4	24.7	24.7	25.0	24.3	25.2	26.1	25.8	**27.9**	8.2%	3.2%	0.1%
Belarus	32.2	30.8	31.5	34.7	34.2	33.6	34.5	38.9	40.5	38.7	**41.2**	6.7%	2.5%	0.1%
Kazakhstan	86.6	90.6	92.6	94.6	91.6	94.6	103.1	107.3	106.5	108.6	**114.4**	5.6%	2.8%	0.4%
Russian Federation	1054.9	1069.3	1059.1	1064.2	1067.5	1091.0	1091.2	1109.2	1118.1	1085.4	**1157.1**	6.9%	0.9%	4.1%
Turkmenistan	17.2	17.8	18.9	20.1	21.5	22.6	22.8	24.2	25.4	26.6	**27.9**	5.4%	5.0%	0.1%
Uzbekistan	52.8	53.0	54.9	55.4	57.3	59.1	60.8	62.9	63.1	66.1	**70.1**	6.4%	2.9%	0.2%
Other CIS	44.6	46.0	43.3	44.1	44.0	43.5	46.3	48.6	49.2	49.4	**49.4**	0.3%	1.0%	0.2%
Total CIS	1308.5	1330.4	1323.7	1337.9	1340.9	1369.3	1383.0	1416.4	1428.8	1400.7	**1488.0**	6.5%	1.3%	5.2%
Iran	235.6	248.8	258.9	275.6	280.2	286.1	305.2	312.4	318.9	337.2	**357.8**	6.4%	4.3%	1.3%
Iraq	42.2	47.8	62.1	71.2	75.3	86.3	93.6	100.2	106.0	105.5	**112.5**	6.9%	10.3%	0.4%
Israel	59.3	63.0	61.4	61.3	64.3	67.4	67.7	69.3	72.4	72.3	**73.6**	2.1%	2.2%	0.3%
Kuwait	57.5	62.7	61.0	65.1	68.3	70.1	72.9	74.2	75.1	74.8	**80.8**	8.2%	3.5%	0.3%
Oman	21.9	25.0	26.2	29.1	32.8	34.2	36.1	37.7	38.8	38.0	**41.5**	9.4%	6.6%	0.1%
Qatar	30.7	34.8	34.7	38.7	41.5	42.3	45.6	47.9	49.9	49.3	**51.7**	5.2%	5.3%	0.2%
Saudi Arabia	250.1	272.1	284.5	312.3	338.8	337.4	354.4	334.9	335.4	338.0	**356.6**	5.8%	3.6%	1.3%
United Arab Emirates	99.1	106.2	110.0	116.5	127.4	129.6	134.6	136.0	138.5	137.3	**139.4**	1.8%	3.5%	0.5%
Other Middle East	104.0	98.8	94.9	94.5	93.0	93.5	94.4	91.7	94.3	90.5	**91.7**	1.6%	-1.3%	0.3%
Total Middle East	900.4	959.1	993.5	1064.5	1121.7	1147.0	1204.3	1204.2	1229.3	1243.0	**1305.6**	5.3%	3.8%	4.6%
Algeria	53.1	57.4	59.9	64.2	68.8	71.0	76.0	76.7	81.5	79.2	**84.3**	6.7%	4.7%	0.3%
Egypt	149.6	162.8	165.1	171.2	181.8	188.2	193.2	199.4	200.6	198.6	**209.7**	5.9%	3.4%	0.7%
Morocco	25.4	27.7	28.1	29.3	30.3	30.7	31.6	34.4	40.1	38.5	**41.0**	6.9%	4.9%	0.1%
South Africa	262.5	257.9	256.1	254.8	250.4	253.1	255.4	256.3	252.6	239.5	**244.3**	2.3%	-0.7%	0.9%
Eastern Africa	78.5	81.7	86.9	93.2	98.6	97.4	103.4	108.7	108.5	109.8	**116.4**	6.3%	4.0%	0.4%
Middle Africa	23.1	23.8	28.4	31.4	33.8	34.3	35.5	39.6	43.6	45.7	**46.8**	2.9%	7.3%	0.2%
Western Africa	52.8	55.4	60.4	64.0	64.4	69.3	71.8	74.3	80.3	85.7	**92.5**	8.2%	5.8%	0.3%
Other Northern Africa	42.6	52.4	56.4	57.0	57.3	51.4	54.0	55.3	55.9	53.5	**58.2**	9.0%	3.2%	0.2%
Other Southern Africa	2.9	3.5	4.1	5.0	5.0	4.8	5.7	5.1	4.5	4.7	**4.4**	-7.3%	4.2%	◆
Total Africa	690.3	722.5	745.5	770.1	790.5	800.1	826.6	849.7	867.6	855.1	**897.5**	5.2%	2.7%	3.2%
Australia	256.3	250.7	249.6	247.6	254.0	258.2	259.0	262.6	265.9	265.2	**267.5**	1.1%	0.4%	0.9%
Bangladesh	44.2	48.7	54.4	57.4	61.8	70.0	73.4	81.1	89.7	89.1	**97.9**	10.2%	8.3%	0.3%
China	4713.0	4987.6	5431.6	5794.5	5814.6	6133.2	6604.4	7166.1	7503.4	7779.1	**8534.3**	10.0%	6.1%	30.0%
China Hong Kong SAR	39.1	38.8	39.1	39.9	38.0	38.2	37.0	36.5	36.9	35.2	**37.1**	5.7%	-0.5%	0.1%
India	1034.0	1091.8	1146.1	1262.2	1322.1	1401.7	1471.3	1579.2	1622.1	1563.3	**1714.8**	10.0%	5.2%	6.0%
Indonesia	183.4	200.3	216.2	228.6	234.0	247.9	254.7	283.8	295.4	291.8	**309.4**	6.3%	5.4%	1.1%
Japan	1104.2	1106.9	1087.8	1062.7	1030.1	1035.1	1042.1	1053.2	1025.8	997.0	**1019.7**	2.6%	-0.8%	3.6%
Malaysia	127.1	134.1	141.0	147.5	150.1	156.7	160.6	170.6	178.5	169.5	**177.2**	4.9%	3.4%	0.6%
New Zealand	44.6	44.2	43.3	44.0	44.7	44.2	44.6	44.7	45.1	44.5	**44.4**	◆	◆	0.2%
Pakistan	100.6	99.5	101.0	106.3	110.5	115.9	127.4	137.8	137.5	135.3	**152.1**	12.7%	4.2%	0.5%
Philippines	69.2	72.9	75.3	77.3	82.4	90.8	94.4	99.8	106.0	101.8	**108.3**	6.7%	4.6%	0.4%
Singapore	46.0	46.9	48.0	49.3	50.3	51.6	52.2	52.9	54.1	53.1	**55.8**	5.4%	1.9%	0.2%
South Korea	518.2	531.2	537.2	540.4	547.8	561.0	576.4	592.9	586.8	575.3	**600.4**	4.7%	1.5%	2.1%
Sri Lanka	11.6	11.9	12.0	12.9	13.2	14.4	15.0	16.2	16.8	16.8	**17.4**	3.7%	4.1%	0.1%
Taiwan	252.2	250.4	252.3	260.0	258.1	264.1	270.3	275.5	274.2	280.0	**290.9**	4.2%	1.4%	1.0%
Thailand	153.3	169.0	168.6	173.8	177.8	179.8	176.7	177.8	186.5	176.5	**176.3**	0.2%	1.4%	0.6%
Vietnam	101.5	115.1	124.5	141.3	157.9	175.7	191.6	209.2	227.4	235.4	**244.8**	4.3%	9.2%	0.9%
Other Asia Pacific	77.0	78.4	87.1	90.3	93.4	112.6	124.5	132.6	131.5	140.5	**146.1**	4.3%	6.6%	0.5%
Total Asia Pacific	8875.5	9278.3	9815.0	10335.8	10440.9	10951.1	11575.6	12372.4	12783.7	12949.3	**13994.4**	8.4%	4.7%	49.2%
Total World	**22268.9**	**22817.5**	**23452.4**	**24049.8**	**24292.0**	**24924.2**	**25647.7**	**26677.3**	**27036.6**	**26889.2**	**28466.3**	**6.2%**	**2.5%**	**100.0%**
of which: OECD	11014.4	11022.8	11014.8	10955.2	11004.1	11082.2	11124.4	11310.9	11191.3	10900.7	**11210.2**	3.1%	0.2%	39.4%
Non-OECD	11254.5	11794.7	12437.7	13094.7	13287.9	13842.0	14523.4	15366.4	15845.3	15988.5	**17256.1**	8.2%	4.4%	60.6%
European Union	2931.1	2931.4	2912.1	2849.3	2897.9	2919.1	2951.4	2935.3	2894.0	2779.0	**2895.3**	4.5%	-0.1%	10.2%

*Based on gross output.
◆Less than 0.05%.
Note: Growth rates are adjusted for leap years.

Electricity generation by fuel*

Terawatt-hours	2020 Oil	2020 Natural Gas	2020 Coal	2020 Nuclear energy	2020 Hydro electric	2020 Renew-ables	2020 Other‡	2020 Total	2021 Oil	2021 Natural Gas	2021 Coal	2021 Nuclear energy	2021 Hydro electric	2021 Renew-ables	2021 Other‡	2021 Total
Canada	2.9	73.6	38.6	97.5	386.5	49.3	0.6	649.1	2.9	75.9	38.7	92.0	380.8	50.0	0.7	**641.0**
Mexico	32.4	200.1	18.9	11.2	26.9	36.2	–	325.7	32.8	203.3	13.6	11.9	34.7	39.7	–	**336.0**
US	18.6	1746.4	844.3	831.5	282.8	547.7	13.5	4284.8	20.2	1693.8	978.5	819.1	257.7	624.5	12.7	**4406.4**
Total North America	54.0	2020.1	901.9	940.1	696.3	633.2	14.1	5259.7	55.9	1973.0	1030.7	923.0	673.3	714.1	13.5	**5383.5**
Argentina	7.1	88.0	1.6	10.7	23.7	13.0	0.6	144.6	7.9	93.3	2.9	10.8	19.6	17.2	0.6	**152.5**
Brazil	10.5	53.5	20.3	14.1	396.4	126.5	–	621.3	21.9	86.9	24.1	14.7	362.8	144.0	–	**654.4**
Other S. & C. America	66.3	90.5	49.1	–	271.2	59.5	†	536.6	66.1	100.9	45.3	–	277.7	68.1	†	**558.0**
Total S. & C. America	83.9	231.9	71.1	24.7	691.2	199.1	0.6	1302.5	95.9	281.1	72.3	25.5	660.1	229.3	0.6	**1364.8**
Germany	4.7	95.0	134.6	64.4	18.3	231.8	24.8	573.6	4.8	89.0	162.6	69.0	19.1	217.6	22.4	**584.5**
Italy	11.4	133.7	15.1	–	45.7	68.8	5.8	280.5	8.3	146.4	14.5	–	43.1	71.4	3.5	**287.2**
Netherlands	1.4	72.6	7.6	4.1	†	33.0	4.9	123.6	1.4	56.3	17.8	3.8	0.1	40.1	2.1	**121.6**
Poland	1.7	17.3	109.4	–	2.1	25.3	1.3	157.1	1.5	15.5	131.7	–	2.3	27.8	1.3	**180.0**
Spain	10.7	69.7	6.1	58.3	30.5	83.2	4.7	263.4	10.3	69.2	6.1	56.5	29.6	95.8	4.7	**272.1**
Turkey	0.3	70.9	105.8	–	78.1	51.5	–	306.7	0.3	110.4	104.2	–	55.7	62.7	–	**333.3**
Ukraine	0.3	14.2	40.2	76.2	7.6	9.4	–	147.8	0.8	10.3	36.8	86.2	10.4	11.0	–	**155.5**
United Kingdom	0.8	111.4	5.5	50.3	6.8	127.8	9.3	312.0	1.5	124.2	6.5	45.9	5.0	116.9	9.9	**309.9**
Other Europe	17.4	180.5	145.4	580.0	468.8	291.8	30.3	1714.2	19.1	178.1	151.9	621.4	484.4	303.2	30.3	**1788.3**
Total Europe	48.9	765.4	569.7	833.2	657.9	922.7	81.1	3879.0	47.9	799.3	632.0	882.8	649.7	946.5	74.2	**4032.5**
Kazakhstan	0.1	27.3	69.4	–	9.7	2.3	–	108.6	0.1	32.9	69.3	–	9.1	3.0	–	**114.4**
Russian Federation	8.2	464.9	175.8	215.9	212.4	3.5	4.7	1085.4	8.5	496.8	204.7	222.4	214.5	5.4	4.7	**1157.1**
Other CIS	2.7	153.6	4.3	3.1	41.1	1.0	0.7	206.6	3.4	156.6	4.3	7.8	42.7	1.2	0.6	**216.5**
Total CIS	11.0	645.8	249.5	219.0	263.2	6.8	5.3	1400.7	11.9	686.4	278.3	230.2	266.3	9.6	5.3	**1488.0**
Iran	37.0	268.2	0.7	6.3	23.2	1.8	–	337.2	48.7	288.3	0.7	3.5	14.9	1.8	–	**357.8**
Saudi Arabia	130.8	207.0	–	–	–	0.2	–	338.0	139.9	215.9	–	–	–	0.8	–	**356.6**
United Arab Emirates	†	132.7	–	1.6	–	4.6		137.3	†	123.7	–	10.5	–	5.2	–	**139.4**
Other Middle East	114.7	282.7	19.0	–	4.9	9.1	†	430.4	117.6	301.8	17.0	–	4.6	10.7	–	**451.7**
Total Middle East	282.5	890.7	19.7	8.0	28.1	15.7	†	1243.0	306.1	929.7	17.7	14.1	19.5	18.5	–	**1305.6**
Egypt	22.7	151.3	–	–	14.9	9.7	–	198.6	26.9	157.6	–	–	14.6	10.5	–	**209.7**
South Africa	1.4	–	202.6	13.9	0.7	15.7	5.1	239.5	1.6	–	209.6	10.4	1.4	16.5	4.8	**244.3**
Other Africa	42.5	185.8	37.2	–	130.8	20.0	0.7	417.0	47.7	197.9	37.8	–	137.4	22.0	0.7	**443.5**
Total Africa	66.7	337.0	239.8	13.9	146.4	45.4	5.8	855.1	76.2	355.6	247.4	10.4	153.4	49.0	5.5	**897.5**
Australia	4.5	53.1	142.9	–	14.4	49.9	0.4	265.2	4.7	47.6	137.4	–	16.0	61.3	0.4	**267.5**
China	10.8	252.5	4920.8	366.2	1321.7	863.2	43.8	7779.1	12.2	272.6	5339.1	407.5	1300.0	1152.5	50.2	**8534.3**
India	2.1	74.5	1125.8	44.6	163.7	152.0	0.6	1563.3	2.3	64.2	1271.1	43.9	160.3	171.9	1.1	**1714.8**
Indonesia	6.8	51.3	180.9	–	24.3	28.6	†	291.8	6.6	56.3	190.0	–	24.7	31.5	0.3	**309.4**
Japan	36.7	353.6	298.0	43.0	77.4	117.8	70.6	997.0	31.3	326.1	301.9	61.2	77.6	130.3	91.3	**1019.7**
Malaysia	0.9	53.6	84.2	–	27.9	2.8	–	169.5	1.1	63.3	77.3	–	32.4	3.1	–	**177.2**
South Korea	6.7	159.9	209.8	160.2	3.9	31.1	3.7	575.3	7.0	176.4	211.7	158.0	3.1	40.2	4.1	**600.4**
Taiwan	4.4	99.9	125.9	31.4	3.0	10.4	4.9	280.0	5.3	108.3	128.9	27.8	3.5	12.1	5.0	**290.9**
Thailand	0.7	113.9	36.8	–	4.5	20.5	†	176.5	0.7	113.1	36.1	–	4.5	21.9	†	**176.3**
Vietnam	1.3	34.0	114.8	–	73.4	12.1	–	235.4	0.2	26.2	114.1	–	75.9	28.3	–	**244.8**
Other Asia Pacific	39.9	234.6	147.8	9.5	148.5	35.4	0.6	616.3	54.7	239.3	158.1	15.9	153.7	36.9	0.7	**659.1**
Total Asia Pacific	114.8	1480.7	7387.7	655.0	1862.9	1323.7	124.7	12949.3	126.3	1493.4	7965.6	714.3	1851.6	1690.1	153.1	**13994.4**
Total World	**661.7**	**6371.7**	**9439.3**	**2694.0**	**4346.0**	**3146.6**	**230.0**	**26889.2**	**720.3**	**6518.5**	**10244.0**	**2800.3**	**4273.8**	**3657.2**	**252.2**	**28466.3**
of which: OECD	145.6	3399.6	2065.6	1872.3	1483.3	1766.1	168.2	10900.7	142.5	3372.4	2253.0	1911.0	1440.3	1910.1	181.0	**11210.2**
Non-OECD	516.0	2972.0	7373.7	821.7	2862.7	1380.5	61.8	15988.5	577.8	3146.1	7991.0	889.2	2833.6	1747.2	71.2	**17256.1**
European Union	45.5	561.4	369.1	683.8	343.2	710.6	65.4	2779.0	43.0	548.0	439.2	732.2	344.4	730.2	58.4	**2895.3**

*Based on gross output.
†Less than 0.05.
Note: Growth rates are adjusted for leap years.

Cobalt production
Mine production

Thousand tonnes	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	**2021**	Growth rate per annum 2021	Growth rate per annum 2011-21	Share 2021
Australia	3.9	5.9	6.4	6.2	6.0	5.5	5.8	4.9	5.7	5.6	**5.6**	-0.3%	3.8%	4.2%
Canada	6.8	3.7	4.0	3.9	4.3	4.2	3.7	3.5	3.3	4.5	**3.8**	-14.1%	-5.6%	2.9%
China	1.5	2.2	2.6	2.8	2.6	2.3	2.5	2.0	2.5	2.2	**2.2**	0.3%	3.9%	1.7%
Cuba	5.1	4.7	4.0	3.7	4.0	3.9	3.9	3.5	3.8	3.8	**4.0**	4.9%	-2.5%	3.0%
Democratic Republic of Congo	99.5	86.4	76.6	76.5	84.4	69.0	90.3	109.4	78.0	86.6	**93.0**	7.7%	-0.7%	70.9%
Madagascar	0.5	0.6	2.4	3.4	4.0	3.8	3.1	2.9	2.9	0.8	**2.0**	140.8%	14.9%	1.5%
Morocco	2.2	2.0	2.0	2.2	2.3	2.7	2.5	2.1	2.3	2.3	**2.3**	0.3%	0.6%	1.8%
New Caledonia	3.1	2.7	3.2	4.0	3.7	3.4	2.8	1.7	1.2	0.7	**–**	-100.0%	-100.0%	–
Papua New Guinea	-	0.5	1.0	2.1	2.5	2.2	3.3	3.3	2.9	2.9	**3.0**	0.7%	–	2.2%
Philippines	2.0	2.7	2.8	4.6	4.3	4.0	4.6	4.8	5.1	4.9	**4.3**	-11.8%	8.0%	3.3%
Russian Federation	6.1	6.3	6.3	6.3	6.2	5.5	5.9	6.1	6.3	6.5	**6.5**	0.3%	0.7%	5.0%
South Africa	1.6	2.5	3.0	3.0	2.9	2.3	2.3	2.3	2.1	1.8	**1.2**	-33.3%	-2.9%	0.9%
Zambia	7.7	5.4	5.9	4.6	3.0	5.0	2.6	1.6	0.4	0.3	**0.3**	0.3%	-28.0%	0.2%
Rest of World	8.3	9.9	11.4	7.5	7.1	4.8	4.0	2.8	3.0	3.7	**3.1**	-16.6%	-9.4%	2.4%
Total World	**148.2**	**135.4**	**131.6**	**130.7**	**137.3**	**118.6**	**137.3**	**150.8**	**119.5**	**126.7**	**131.3**	**3.9%**	**-1.2%**	**100.0%**

Growth rates are adjusted for leap years.

Source: includes data from US Geological Survey, British Geological Survey © UKRI and World Mining Data.

Lithium production
Mine production

Thousand tonnes	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	**2021**	Growth rate per annum 2021	Growth rate per annum 2011-21	Share 2021
Argentina	3.0	2.7	2.5	3.2	3.6	5.8	5.7	6.4	6.3	5.9	**6.0**	1.4%	7.3%	5.6%
Australia	11.7	12.7	10.1	12.4	11.9	14.0	21.3	57.0	45.0	40.0	**55.4**	38.9%	16.8%	52.3%
Brazil	0.3	0.2	0.4	0.2	0.1	0.2	0.3	1.0	2.2	1.4	**1.5**	5.9%	16.7%	1.4%
Chile	11.9	12.3	10.5	10.8	9.8	13.6	14.2	17.0	19.2	21.6	**26.0**	20.5%	8.1%	24.5%
China	4.1	4.5	4.7	2.3	2.0	2.3	6.8	7.1	10.8	13.3	**14.0**	5.6%	13.0%	13.2%
Portugal	0.6	0.3	0.3	0.3	0.3	0.4	0.8	1.2	0.9	0.3	**0.9**	159.5%	4.8%	0.8%
US	1.0	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	**0.9**	0.3%	-1.0%	0.8%
Zimbabwe	0.5	1.1	1.0	0.9	0.9	1.0	0.8	1.6	1.2	0.4	**1.2**	188.6%	9.8%	1.1%
Rest of World	–	–	–	†	–	†	0.1	3.0	0.4	0.1	**0.1**	27.2%	–	0.1%
Total World	**33.0**	**34.7**	**30.4**	**31.0**	**29.5**	**38.2**	**50.9**	**95.1**	**86.9**	**84.0**	**106.0**	**26.5%**	**12.4%**	**100.0%**

†less than 0.05.
Growth rates are adjusted for leap years.

Source: includes data from US Geological Survey, British Geological Survey © UKRI and World Mining Data.

Natural graphite production
Mine production

Thousand tonnes	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	**2021**	Growth rate per annum 2021	Growth rate per annum 2011-21	Share 2021
Brazil[1]	105.2	88.1	91.9	87.0	75.1	61.7	79.8	95.0	96.0	95.0	**95.0**	0.3%	-1.0%	7.8%
Canada	25.0	24.0	20.0	30.0	30.0	21.0	14.0	11.0	11.0	7.6	**7.7**	1.3%	-11.1%	0.6%
China	800.0	820.0	750.0	780.0	725.0	625.0	625.0	693.0	700.0	762.0	**820.0**	7.9%	0.2%	67.1%
India[2]	153.3	134.7	146.4	116.7	134.6	137.3	46.4	44.5	30.5	31.8	**40.2**	26.8%	-12.5%	3.3%
Madagascar	3.6	2.9	4.3	5.3	8.1	9.2	13.3	48.1	53.4	48.5	**88.1**	82.1%	37.8%	7.2%
Mexico	7.3	7.5	7.0	9.2	6.5	3.8	1.7	4.1	1.6	1.5	**1.7**	13.9%	-13.8%	0.1%
Mozambique	–	–	–	–	–	–	0.3	104.0	153.0	12.0	**72.0**	501.6%	–	5.9%
Norway	7.8	7.0	6.2	8.3	9.2	9.6	9.6	12.0	9.8	5.5	**6.3**	13.7%	-2.1%	0.5%
Russian Federation	20.7	14.3	20.2	17.6	15.9	19.4	19.5	11.9	17.5	12.9	**15.2**	18.4%	-3.0%	1.2%
Sri Lanka	3.4	4.2	3.1	4.0	4.2	4.0	3.5	4.0	4.0	4.0	**4.3**	7.8%	2.5%	0.4%
Turkey	5.3	31.5	28.7	3.9	–	–	–	16.8	10.0	15.2	**15.2**	0.3%	11.2%	1.2%
Ukraine	0.9	7.0	2.0	8.0	7.9	6.1	13.9	12.2	1.5	4.1	**3.2**	-22.1%	13.5%	0.3%
Rest of World	39.2	52.2	45.7	57.8	56.5	59.0	59.4	56.6	51.1	53.5	**54.1**	1.3%	3.3%	4.4%
Total World	**1171.6**	**1193.5**	**1125.6**	**1127.8**	**1073.0**	**956.2**	**886.4**	**1113.1**	**1139.4**	**1053.6**	**1223.0**	**16.4%**	**0.4%**	**100%**

[1]Including beneficiated and directly shipped material.
[2]Run of the mine.
Growth rates are adjusted for leap years.

Source: includes data from US Geological Survey, British Geological Survey © UKRI and World Mining Data.

Rare earth metals production
Mine production

Thousand tonnes[1]	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	**2021**	Growth rate per annum 2021	Growth rate per annum 2011-21	Share 2021
Australia	2.2	3.2	1.3	6.2	11.9	13.9	17.3	18.6	17.6	21.1	**22.5**	7.2%	26.3%	7.9%
Brazil	0.1	1.6	0.3	–	0.9	2.7	1.7	1.2	0.7	0.6	**0.5**	-16.4%	13.6%	0.2%
China	93.8	93.8	93.8	105.0	105.0	105.0	105.0	120.0	132.0	140.0	**168.0**	20.3%	6.0%	59.0%
India	–	–	0.3	1.7	1.0	2.3	2.7	4.2	5.0	5.0	**5.0**	0.3%	–	1.8%
Madagascar	–	–	–	–	–	–	–	2.0	4.0	2.8	**3.2**	14.6%	–	1.1%
Russian Federation	1.4	2.1	1.4	2.1	2.3	3.1	2.5	2.6	2.6	2.6	**2.6**	0.3%	6.1%	0.9%
Thailand	3.1	0.1	0.1	1.9	0.8	1.6	1.3	1.0	1.9	3.6	**8.0**	122.8%	9.9%	2.8%
US	–	3.0	5.5	5.4	5.9	–	–	18.0	28.0	39.0	**43.0**	10.6%	–	15.1%
Rest of World	0.6	0.3	0.3	0.2	0.9	4.8	15.4	25.5	26.6	32.1	**31.6**	-1.1%	48.4%	11.1%
Total World	**101.3**	**104.2**	**103.0**	**122.6**	**128.6**	**133.4**	**145.9**	**193.1**	**218.4**	**246.8**	**284.5**	**15.6%**	**10.9%**	**100%**

[1]Thousand tonnes of rare earth oxide equivalent.
Growth rates are adjusted for leap years.

Source: includes data from US Geological Survey, British Geological Survey © UKRI and World Mining Data.

Reserves of key minerals

Cobalt reserves

Thousand tonnes	At end of 2021	Share	R/P ratio
Australia	1400	20.5%	251
Canada	220	3.2%	57
China	80	1.2%	36
Cuba	500	7.3%	126
Democratic Republic of Congo	3500	51.4%	38
Madagascar	100	1.5%	50
Morocco	13	0.2%	6
New Caledonia	64	0.9%	–
Papua New Guinea	47	0.7%	16
Philippines	260	3.8%	60
Russian Federation	250	3.7%	38
South Africa	40	0.6%	33
Zambia	270	4.0%	941
Rest of World*	69	1.0%	22
Total World	**6813.0**	**100.0%**	**52**

Natural graphite reserves

Thousand tonnes	At end of 2021	Share	R/P ratio
Brazil	70000	19.2%	737
Canada	648	0.2%	84
China	73000	20.0%	89
India	8000	2.2%	199
Madagascar	26000	7.1%	295
Mexico	3100	0.8%	1867
Mozambique	25000	6.9%	347
Norway	600	0.2%	95
Russian Federation	25703	7.0%	1688
Sri Lanka	1500	0.4%	349
Turkey	90000	24.7%	5919
Ukraine	13761	3.8%	4322
Rest of World*	27600	7.6%	510
Total World	**364912**	**100%**	**298**

Lithium reserves

Thousand tonnes	At end of 2021	Share	R/P ratio
Argentina	2200	10.9%	369
Australia	5700	28.1%	103
Brazil	95	0.5%	63
Chile	9200	45.4%	354
China	1500	7.4%	107
Portugal	60	0.3%	67
US	750	3.7%	833
Zimbabwe	220	1.1%	183
Rest of World*	530	2.6%	5221
Total World	**20255**	**100.0%**	**191**

Rare earth metals reserves

Thousand tonnes	At end of 2021	Share	R/P ratio
Australia	4000	3.2%	177
Brazil	21000	17.0%	42000
China	44000	35.7%	262
India	6900	5.6%	1367
Madagascar	189	0.2%	59
Russian Federation	19380	15.7%	7454
Thailand	n/a	n/a	n/a
US	1800	1.5%	42
Rest of World*	26040	21.1%	823
Total World	**123309**	**100%**	**433**

*Rest of World is the sum of only recorded reserves.
n/a not available.

Sources: includes data from US Geological Survey, British Geological Survey © UKRI and World Mining Data.

Methodology

The *Statistical Review* provides a globally consistent data time series.
Here we outline the definitions, conversion factors and calculations we use to produce the report.

More detail on the methodology

Primary energy

Traditionally, in bp's *Statistical Review of World Energy*, the primary energy of non-fossil based electricity (nuclear, hydro, wind, solar, geothermal, biomass in power and other renewables sources) has been calculated on an 'input-equivalent' basis – i.e. based on the equivalent amount of fossil fuel input required to generate that amount of electricity in a standard thermal power plant. For example, if nuclear power output for a country was 100 TWh, and the efficiency of a standard thermal power plant was 38%, the input-equivalent primary energy would be 100/0.38 = 263 TWh or about 0.95 EJ.

For many years, the efficiency of this standard power plant has been assumed to be 38%. However, in reality, the world average efficiency of fossil fuel-based power changes over time and has risen from around 36% in 2000 to over 40% today. Moreover, given the much higher efficiency of the most modern power plant (e.g. the thermal efficiency of a modern gas turbine plant is above 55%), the global average is expected to increase in the future.

Therefore, to better assess primary energy trends, we have decided to move to a time-dependent thermal equivalence model. The conversion factor used each year to calculate the 'input-equivalent' consumption for a given level of generation is based on a simplified representation of measured average efficiency levels:

1965-2000: assumed constant efficiency of 36%

2000-2017: a linear increase from 36% to 40% based on observed data

2018 onwards: the annual rate of efficiency improvement is based on the simplified assumption that efficiency will increase linearly to 45% by 2050.

The table below quantifies these assumptions (rounded to 1 decimal place):

Thermal equivalent efficiency factors used to convert non-fossil electricity (excluding biomass-powered electricity) to primary energy

Year(s)	Efficiency factor	Year(s)	Efficiency factor
1965-2000	36%	2011	38.6%
2001	36.2%	2012	38.8%
2002	36.5%	2013	39.1%
2003	36.7%	2014	39.3%
2004	36.9%	2015	39.5%
2005	37.2%	2016	39.8%
2006	37.4%	2017	40.0%
2007	37.6%	2018	40.2%
2008	37.9%	2019	40.3%
2009	38.1%	2020	40.5%
2010	38.4%	2021	40.6%

In this year's *Statistical Review*, we have also updated the thermal equivalent efficiency factor used to convert electricity generation from biomass to primary energy equivalent. In the previous editions, we used the same factor for biomass as for all non-fossil electricity. In this edition, we assume a constant efficiency of 32% for biomass power to better reflect the actual efficiency of biomass power plants.

Primary energy consumption is reported in net terms. The gross calorific value to net calorific value adjustment is fuel-specific.

Fuels used as inputs for conversion technologies (gas-to-liquids, coal-to-liquids and coal-to-gas) are counted as production for the source fuel and the outputs are counted as consumption for the converted fuel.

Oil

Oil Reserves

Total proved reserves of oil are generally taken to be those quantities that geological and engineering information indicates with reasonable certainty can be recovered in the future from known reservoirs under existing economic and geological conditions.

The data series for proved oil reserves in this year's review does not necessarily meet the definitions, guidelines and practices used for determining proved reserves at company level, for instance as published by the US Securities and Exchange Commission nor does it necessarily represent bp's view of proved reserves by country. Rather the data series has been compiled using a combination of primary official sources and third-party data.

Oil reserves include field condensate and natural gas liquids as well as crude oil. This inclusive approach helps to develop consistency with the oil production numbers published in the Review, which also include these categories of oil. The reserves and R/P ratio for Canada includes Canadian oil sands and the reserves and R/P ratio for Venezuela includes the Orinoco Belt.

Liquid hydrocarbon fuels from non-hydrocarbon sources, such as ethanol from corn or sugar or synthetic oil derived from natural gas (so-called GTL or gas-to-liquids), are not included in either the reserves or production series.

We have provided a detailed explanatory note on reserves clarifying current definitions and terminology.

R/P ratios represent the length of time that those remaining reserves would last if production were to continue at the previous year's rate. They are calculated by dividing remaining reserves at the end of the year by the production in that year.

Reserves-to-production (R/P) ratios are available by country and feature in the table of oil reserves. There is a time series of crude oil reserves from 1980, which can be found in the Excel workbook. Data are measured in thousand million barrels.

Please note that due to process improvements for the *Statistical Review* that these reserves tables have not been updated this year.

Oil production

Oil production data includes crude oil, shale oil, oil sands, condensates (lease condensate or gas condensates that require further refining) and NGLs (natural gas liquids – ethane, LPG and naphtha separated from the production of natural gas). Excludes liquid fuels from other sources such as biofuels and synthetic derivatives of coal and natural gas. This also excludes liquid fuel adjustment factors such as refinery processing gain. Excludes oil shales/kerogen extracted in solid form.

The split of crude/condensate and natural gas liquids figures are available. The crude condensate table includes crude oil, shale/tight oil, oil sands, lease condensate or gas condensates that require further refining. Excludes liquid fuels from other sources such as biomass and synthetic derivatives of coal and natural gas. The NGL's table includes ethane, LPG and naphtha separated from the production of natural gas. Excludes condensates.

World oil production tables are available in both thousand barrels daily and million tonnes.

Liquids, oil and oil product consumption

Oil consumption as defined in previous *Statistical Reviews* (i.e. including biofuels) has been renamed 'liquids' consumption and a table is still included on this original basis. In addition, more granularity has been included on the product split of both oil products and biofuels (breaking out ethane & LPG and naphtha in oil products and the ethanol/biodiesel split of biofuels).

Total liquids consumption comprises inland demand plus international aviation and marine bunkers and refinery fuel and loss. Consumption of biogasoline (such as ethanol), biodiesel and derivatives of coal and natural gas are also included.

Oil consumption figures include inland demand plus international aviation and marine bunkers and refinery fuel and loss. Consumption of biogasoline (such as ethanol), biodiesel and derivatives of coal and natural gas are excluded. Derivatives of coal and natural gas are included.

Oil product consumption – Gasoline includes motor and aviation gasoline, gasolines and light distillate feedstock (LDF). Diesel/gasoil includes marine gasoil. 'Fuel oil' includes marine bunkers and crude oil used directly for fuel. 'Others' consists of refinery gas, solvents, petroleum coke, lubricants, bitumen, wax, other refined products and refinery fuel and loss.

Data are supplied in both exajoules and thousand barrels daily figures.

Oil prices

The key crudes quoted are Brent, West Texas Intermediate (WTI), Nigerian Focados and Dubai in US$ per barrel.

The spot crude price history from 1972 and annual crude price history from 1861 are available in the historical data excel workbook.

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Email: support@platts.com

Refining

The refinery capacity data presented in this Review represents the sum of reported atmospheric crude distillation and condensate splitting capacity. Capacity should comprise the amount of input that a distillation facility can process under usual operating conditions, taking into account scheduled downtime. Figures are in thousand barrels daily at year end per calendar day.

Refinery throughputs are based on the quantity of crude and condensate processed in atmospheric distillation units and condensate splitters. Figures are in thousands of barrels per day.

The refining margins presented are benchmark margins for three major global refining centres: US Gulf Coast (USGC), North West Europe (NWE – Rotterdam) and Singapore. In each case they are based on a single crude oil appropriate for that region and have optimized product yields based on a generic refinery configuration (cracking, hydrocracking or coking), again appropriate for that region. The margins are on a semi-variable basis, i.e. the margin after all variable costs and fixed energy costs.

Oil trade movements

The tables exclude the intra-area movements of oil (for example, crude oil and products moving between countries within Europe). They do not include biofuels. Bunkers fuel is not included as exports. Crude imports and exports include condensates. Saudi Arabian exports from 1980 are also available in the oil trade movements table in the Excel workbook. The split of crude oil and products are detailed. Data in the tables are in million tonnes and thousand barrels per day.

Gas

Reserves

Total proved reserves of natural gas are generally taken to be those quantities that geological and engineering information indicates with reasonable certainty can be recovered in the future from known reservoirs under existing economic and operating conditions.

The data series for proved natural gas reserves in this year's Review does not necessarily meet the definitions, guidelines and practices used for determining proved reserves at company level, for instance as published by the US Securities and Exchange Commission nor does it necessarily represent bp's view of proved reserves by country. Rather the data series has been compiled using a combination of primary official sources and third-party data.

Although every effort is made to come up with a consistent series for reserves based on a common definition, different countries use different methodologies and the data have varying levels of reliability.

R/P ratios represent the length of time that those remaining reserves would last if production were to continue at the previous year's rate. They are calculated by dividing remaining reserves at the end of the year by the production in that year.

As far as possible, the data represents standard cubic metres (measured at 15°C and 1013 mbar) and have been standardized using a gross calorific value (GCV) of 40 MJ/m^3.

There is a time series of natural gas reserves, which can be found in the Excel workbook. Data are measured in billion cubic metres.

Please note that due to process improvements for the *Statistical Review* that these reserves tables have not been updated this year.

Natural gas production

Gas production comprises marketed production and excludes gas flared or recycled gas. Includes natural gas produced for gas-to-liquids transformation.

As far as possible, the data above represents standard cubic metres (measured at 15°C and 1013 mbar); as they are derived directly from tonnes of oil equivalent using an average conversion factor and have been standardized using a gross calorific value (GCV) of 40 MJ/m^3, they do not necessarily equate with gas volumes expressed in specific national terms.

Natural gas production is provided in three different units of measurement to accommodate regional customary usage. World natural gas production PDF tables are in both billion cubic metres, and exajoules. Data in the Excel workbook are also in billion cubic feet per day (bcf/d).

Natural gas consumption

Natural gas consumption excludes natural gas converted to liquid fuels but includes derivatives of coal as well as natural gas consumed in gas-to-liquids transformation.

As far as possible, the data above represents standard cubic metres (measured at 15°C and 1013 mbar); as they are derived directly from tonnes of oil equivalent using an average conversion factor and have been standardized using a gross calorific value (GCV) of 40 MJ/m^3 they do not necessarily equate with gas volumes expressed in specific national terms. The difference between these world consumption figures and the world production statistics is due to variations in stocks at storage facilities and liquefaction plants, together with unavoidable disparities in the definition, measurement or conversion of gas supply and demand data.

Consumption data in the PDF data table is in billion cubic meters (bcm) and exajoules, data in billion cubic feet per day (bcf/day) can be found in the Excel workbook.

Natural gas prices

Annual prices are given for benchmark natural gas hubs together with contracted pipeline and LNG imports. The benchmark hub prices incorporate US (Henry Hub), Canada (Alberta), Netherlands TTF index and the UK (NBP). Contract prices are represented by LNG imports into Japan, the Japan Korea Marker (JKM) and Average German Import Prices.

The prices for LNG and European border are calculated as CIF prices, where CIF = cost + insurance + freight (average freight prices) in US dollars per million British thermal units (Btu).

Natural gas trade movements

Trade flows are on a contractual basis and may not correspond to physical gas flows in all cases. The data illustrates the flow of pipeline natural gas and LNG between sources of production and the regions of consumption. LNG trade. As far as possible, the data represents standard cubic metres (measured at 15°C and 1013 mbar) and has been standardized using a gross calorific value (GCV) of 40 MJ/m^3.

Coal

Coal reserves

Total proved reserves of coal are generally taken to be those quantities that geological and engineering information indicates with reasonable certainly can be recovered in the future from known deposits under existing economic and operating conditions.

Total proved coal reserves are shown for anthracite and bituminous (including brown coal) and sub-bituminous and lignite.

Reserves-to-production (R/P) ratios represent the length of time that those remaining reserves would last if production were to continue at the previous year's rate. They are calculated by dividing remaining reserves at the end of the year by the production in that year. The R/P ratios are calculated excluding other solid fuels in reserves and production.

R/P ratios are available by country and feature in the table of coal reserves. R/P ratios for the region and the world are depicted in the chart above and the Energy charting tool.

Coal reserve data is in million tonnes.

Please note that due to process improvements for the *Statistical Review* that these reserves tables have not been updated this year.

Coal production

Coal production includes data for commercial solid fuels only. Included in the hard coal category are bituminous and anthracite (hard coal). The sub-bituminous coal includes lignite and brown coal. Other commercial solid fuels are also included. The data includes coal produced for coal-to-liquids and coal-to-gas transformations.

In the coal production PDF table, the units are in exajoules. The data can also be downloaded from the Excel workbook in million tonnes.

Coal consumption

Coal consumption includes data for solid fuels only. Included in the hard coal category are bituminous and anthracite. The sub-bituminous coal includes lignite and brown coal. Other commercial solid fuels are also included. The figures exclude coal converted to liquid or gaseous fuels, but includes coal consumed in transformation processes.

Differences between world consumption figures and the world production statistics are accounted for by stock changes, and unavoidable disparities in the definition, measurement or conversion of coal supply and demand data.

Coal prices

Annual prices quoted include the Northwest Europe marker price, Japan steam spot CIF price, China Quinhuangdao spot price and the US Central Appalachian coal spot price index. Coal prices except for the US Central Appalachian price are calculated as CIF prices, where CIF = cost + insurance + freight (average freight prices). The US Central Appalachian price is FOB = free on board. All prices are quoted in US dollars per tonne.

IHS Northwest Europe prices for 1996-2000 are the average of the monthly marker, 2001-2017 the average of weekly prices. IHS Japan prices basis = 6,000 kilocalories per kilogram NAR CIF. Chinese prices are the average monthly price for 2000-2005, weekly prices 2006-2017, 5,500 kilocalories per kilogram NAR, including cost and freight (CFR).

Coal trade movements

Commercial solid fuels only, i.e. bituminous coal and anthracite (hard coal), and lignite and brown (sub-bituminous) coal, and other commercial solid fuels. Intra-area movements (for example, between countries in Europe, Other CIS, Other Africa, Other Asia Pacific) are excluded.

Nuclear

The data are based on gross generation and not accounting for cross-border electricity supply. 'Input-equivalent' energy is the amount of fuel that would be required by thermal power stations to generate the reported electricity output. Details on thermal efficiency assumptions are available online

Data for the units are in exajoules in the PDF. The data are available in the Excel workbook in terawatt–hours (TWh).

Hydro

The data are based on gross generation and not accounting for cross-border electricity supply. 'Input-equivalent' energy is the amount of fuel that would be required by thermal power stations to generate the reported electricity output. Details on thermal efficiency assumptions are available online

In the hydroelectricity consumption PDF table, the units are in exajoules. The data are available in the Excel workbook in terawatt-hours (TWh).

Renewable energy

The data are based on gross generation and not accounting for cross-border electricity supply. 'Input-equivalent' energy is the amount of fuel that would be required by thermal power stations to generate the reported electricity output. Details on thermal efficiency assumptions are available online

Renewable power is based on gross generation from renewable sources including wind, geothermal, solar, biomass and waste, and not accounting for cross-border electricity supply.

Biofuels production and consumption

The data includes biogasoline (such as ethanol) and biodiesel. Volumes have been adjusted for energy content.

The biofuels PDF tables are in thousand barrels of oil equivalent per day figures. The data are available in additional units in the Excel workbook.

Electricity

Electricity generation is based on gross output.

Carbon

Carbon emissions from primary energy use are estimated by applying the Default CO_2 Emission Factors for Combustion to the consumption of each energy product type (coal, natural gas and various oil products) from the list of IPCC emission factors. Biofuels are considered as not emitting CO_2, consistent with the practice of the IEA. Second, the revised method takes account of fuel consumption used for non-combustion purposes, such as the use of oil products and natural gas in the petrochemicals industry or of oil to produce bitumen for road construction. Estimates of the share of non-combusted fossil fuels taken from the IEA's energy balances are subtracted from the total consumption of fossil fuels before applying the relevant emission factors.

Carbon emissions from flared natural gas are calculated using data series on volumes of gas flared from two sources: Cedigaz up to 2012, and the Payne Institute for Public Policy, Colorado School of Mines from 2013 onward. Payne Institute's data include flaring from upstream, downstream oil and gas, while Cedigaz include flaring from upstream only. Volumes of gas flared have been standardised using a Gross Calorific Value (GCV) of 40 MJ/m^3. The IPCC Default CO_2 Emission Factor for Combustion for natural gas (56,100 kg CO_2 per TJ) is used and perfect combustion has been assumed. These emissions represent around 1% of total CO_2 emissions.

Data for methane emissions associated with the production, transportation and distribution of fossil fuels for 1990-2020 are sourced, where available, from IEA (2021, 2022) Greenhouse Gas Emissions from Energy, https://www.iea.org/data-and-statistics/data-product/greenhouse-gas-emissions-from-energy. All rights reserved. For a selected number of fossil fuel producing countries where methane emission data is not currently available, an estimate of historical methane emissions has been derived using regional average methane intensity of production. For 2021, methane emission estimates are derived for all countries using methane intensity of fossil fuel production in 2020. Total methane emissions at a global and regional level show a discrepancy with IEA data due to non-inclusion of residual emissions i.e. emissions which have not been allocated to named countries. There is a wide range of uncertainty with respect to both current estimates of methane emissions and the global warming potential of methane emissions. To ensure alignment with financial and government reporting standards, the methane to CO_2e factor is a 100-year Global Warming Potential (GWP) of 25, recommended by the IPCC in AR4.

Carbon emissions from industrial processes refer only to non-energy CO_2 emissions from cement production and are sourced for 1990-2021 from Andrew, R. M. (2019) Global CO_2 emissions from cement production, 1928-2018. Earth System Science Data 11, 1675-1710, (updated dataset May 2022).

Appendices

Approximate conversion factors

Crude oil*

From	To				
	tonnes (metric)	kilolitres	barrels	US gallons	tonnes per year
	Multiply by				
Tonnes (metric)	1	1.165	7.33	307.86	–
Kilolitres	0.8581	1	6.2898	264.17	–
Barrels	0.1364	0.159	1	42	–
US gallons	0.00325	0.0038	0.0238	1	–
Barrels per day	–	–	–	–	49.8

*Based on worldwide average gravity.

Products

	To convert					
	barrels to tonnes	tonnes to barrels	kilolitres to tonnes	tonnes to kilolitres	tonnes to gigajoules	tonnes to barrels oil equivalent
	Multiply by					
Ethane	0.059	16.850	0.373	2.679	49.400	8.073
Liquefied petroleum gas (LPG)	0.086	11.600	0.541	1.849	46.150	7.542
Gasoline	0.120	8.350	0.753	1.328	44.750	7.313
Kerosene	0.127	7.880	0.798	1.253	43.920	7.177
Gas oil/diesel	0.134	7.460	0.843	1.186	43.380	7.089
Residual fuel oil	0.157	6.350	0.991	1.010	41.570	6.793
Product basket	0.124	8.058	0.781	1.281	43.076	7.039

Natural gas (NG) and liquefied natural gas (LNG)

From	To						
	billion cubic metres NG	billion cubic feet NG	petajoules NG	million toe	million tonnes LNG	trillion Btu	million boe
	Multiply by						
1 billion m³ NG	1.000	35.315	36.000	0.860	0.735	34.121	5.883
1 billion ft³ NG	0.028	1.000	1.019	0.024	0.021	0.966	0.167
1 petajoule NG	0.028	0.981	1.000	0.024	0.021	0.952	0.164
1 million toe	1.163	41.071	41.868	1.000	0.855	39.683	6.842
1 million tonnes LNG	1.360	48.028	48.747	1.169	1.000	46.405	8.001
1 trillion Btu	0.029	1.035	1.050	0.025	0.022	1.000	0.172
1 million boe	0.170	6.003	6.093	0.146	0.125	5.800	1.000

Units

1 metric tonne	= 2204.62lb = 1.1023 short tons
1 kilolitre	= 6.2898 barrels = 1 cubic metre
1 kilocalorie (kcal)	= 4.1868kJ = 3.968Btu
1 kilojoule (kJ)	= 1,000 joules = 0.239 kcal = 0.948 Btu
1 petajoule (Pj)	= 1 quadrillion joules (1×10^{15})
1 exajoule (EJ)	= 1 quintillion joules (1×10^{18})
1 British thermal unit (Btu)	= 0.252kcal = 1.055kJ
1 tonne of oil equivalent (toe)	= 39.683 million Btu = 41.868 million kJ
1 barrel of oil equivalent (boe)	= 5.8 million Btu = 6.119 million kJ
1 kilowatt-hour (kWh)	= 860kcal = 3600kJ = 3412Btu

Calorific equivalents

One exajoule equals approximately:

Heat units	239 trillion kilocalories 948 trillion Btu
Solid fuels	40 million tonnes of hard coal 95 million tonnes of lignite and sub-bituminous coal
Gaseous fuels	See Natural gas and LNG table
Electricity	278 terawatt-hours

All fuel energy content is net or lower heating value (i.e., net of heat of vaporisation of water generated from combustion).

1 barrel of ethanol = 0.58 barrels of oil equivalent
1 barrel of biodiesel = 0.86 barrels of oil equivalent
1 tonne of ethanol = 0.68 tonnes of oil equivalent
1 tonne of biodiesel = 0.88 tonnes of oil equivalent

Definitions

Statistics published in this review are taken from government sources and published data. No use is made of confidential information obtained by bp in the course of its business.

Country, regions and geographic groupings

Country and geographic groupings are made purely for statistical purposes and are not intended to imply any judgement about political or economic standings.

North America
US (excluding US territories), Canada, Mexico.

South & Central America
Caribbean (including Puerto Rico and US Virgin Islands), Bermuda, Central and South America.

Europe
European members of the OECD plus Albania, Bosnia-Herzegovina, Bulgaria, Croatia, Cyprus, Georgia, Gibraltar, Latvia, Lithuania, Malta, Montenegro, North Macedonia, Romania, Serbia and Ukraine.

Commonwealth of Independent States (CIS)
Armenia, Azerbaijan, Belarus, Kazakhstan, Kyrgyzstan, Moldova, Russian Federation, Tajikistan, Turkmenistan, Uzbekistan.

Middle East
Arabian Peninsula, Iran, Iraq, Israel, Jordan, Lebanon, Syria.

North Africa
Territories on the north coast of Africa from Egypt to Western Sahara.

West Africa
Territories on the west coast of Africa from Mauritania to Angola, including Cape Verde, Chad.

East and Southern Africa
Territories on the east coast of Africa from Sudan to Republic of South Africa. Also Botswana, Madagascar, Malawi, Namibia, Uganda, Zambia, Zimbabwe.

Asia Pacific
Brunei, Cambodia, China†, China Hong Kong SAR*, China Macau SAR*, Indonesia, Japan, Laos, Malaysia, Mongolia, North Korea, Philippines, Singapore, South Asia (Afghanistan, Bangladesh, India, Myanmar, Nepal, Pakistan, Sri Lanka), South Korea, Taiwan, Thailand, Vietnam, Australia, New Zealand, Papua New Guinea, Oceania.
†Mainland China.
*Special Administrative Region.

Australasia
Australia, New Zealand.

OECD members
Europe: Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, UK.
Other member countries: Australia, Canada, Chile, Colombia, Israel, Japan, Mexico, New Zealand, South Korea, US.

OPEC members
Middle East: Iran, Iraq, Kuwait, Saudi Arabia, United Arab Emirates.
North Africa: Algeria, Libya.
West Africa: Angola, Equatorial Guinea, Gabon, Nigeria, Republic of Congo.
South America: Venezuela.

European Union members
Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden.

Non-OECD
All countries that are not members of the OECD.

More information

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